

# THE INEIGHT PROJECT CONTROLS PLATFORM

AN OVERVIEW OF INEIGHT CAPABILITIES



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# ABOUT INEIGHT

## InEight — Transforming the Future of Capital Projects

As a leading developer of capital project management software, InEight has more than 30 years of real-world experience transforming the way contractors, owners, designers and engineers approach and tackle their greatest project pain points.

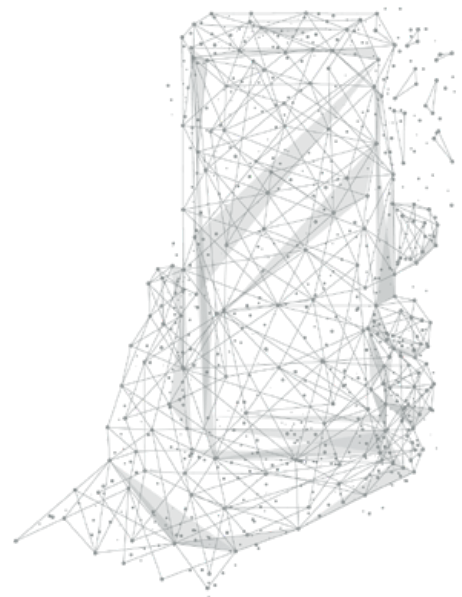
Our flexible and modular platform of software solutions delivers both integrated business processes and connected data across every phase of construction, from project scheduling to design control, and from work planning to turnover. It gives project stakeholders the real-time information and insights they need to minimize risk and improve operational efficiency, while controlling project scope, cost, and schedule to realize better overall project certainty.

More than 575,000 users in over 60 countries rely on InEight field-tested solutions to estimate and manage more than \$1 trillion worth of capital construction projects worldwide. In addition to providing real-time insights, the InEight integrated platform of solutions help manage risk and keep projects on schedule and under budget across the entire life cycle.

Our software was developed to meet the unique demands of capital projects servicing many different industries:

- Construction
- Engineering
- Design
- General Building
- Transportation
- Energy, Power & Renewables
- Utilities
- Water
- Oil, Gas & Chemicals
- Mining & Minerals

To learn more about InEight and its integrated platform of solutions, visit [www.ineight.com](http://www.ineight.com) and watch this [video](#).



## Committed to Innovation

InEight is unmatched in its commitment to help customers with their digital transformation journey today, knowing that doing so will help them stay competitive tomorrow.

But it's not just about developing innovative and connected solutions. It's about making sure companies have the information they need when and where they need it. InEight is here to help organizations avoid project surprises, make it easier for them to make informed decisions on scope, cost and schedule as well as keep projects built to the highest quality.



*“Until now, capital projects have long suffered from disconnected solutions that make it a considerable challenge to guide a project from inception to operations. The InEight integrated project controls platform gives project stakeholders real-time insights to deliver projects on time and on budget.”*

– Jake Macholtz CEO, InEight

# THE INEIGHT INTEGRATED PLATFORM

## Field-tested Software Built for the Biggest Projects

The InEight integrated platform of software solutions transforms the way contractors, owners, designers and engineers manage construction projects today. The platform has been developed by industry professionals to meet the unique demands of large capital projects. Cloud-based solutions from InEight support projects throughout the entire life cycle — even in the most challenging build environments. It creates meaningful insights across your projects and programs providing real-time visibility into scope, cost and schedule so you can realize better outcomes.

Because the integrated platform enables better collaboration among stakeholders, it drives efficiency and minimizes project surprises and risk. Simultaneously, users can capture project experience and leverage artificial intelligence with machine learning, which drives performance-based benchmarking across programs and projects leading to higher project certainty and better outcomes.

### Turn Disparate Data Into Connected Data

The volume of data created to deliver even a small project is massive. Making sense of data that's derived from disconnected systems can be nearly impossible. By providing a common data environment (CDE), InEight improves your ability to collect, manage and report against data. This drives efficiencies in execution because

stakeholders have a unified view of projects through models, reports, dashboards and the source systems used to manage projects and programs.

### Manage Scope, Cost and Schedule Constraints

Adapt plans in real time as demands and conditions change from original through final. Get real-time line of sight to scope changes, which includes design quantities, models, documents, drawings, contracts, changes, inspections and test plans. Obtain cash flow insight and protection against margin erosion, which includes original, current and planned budgets as well as estimates and forecasts along with scenario modeling. Deliver the most realistic plans, which includes critical-path method (CPM) schedules, risk assessments, work plans, short-interval plans and daily plans.

### Drive Efficiency and Eliminate Surprises

InEight connects your office and field teams and strengthens communication and collaboration across stakeholders. The solution provides a complete life cycle view of your projects and programs to eliminate rework, reduce risk and enable fast decision making from seamlessly flowing, consistent, real-time data. This higher level of visibility, communication and accuracy helps you make critical project decisions that result in greater project certainty.

## Unlock Your Data

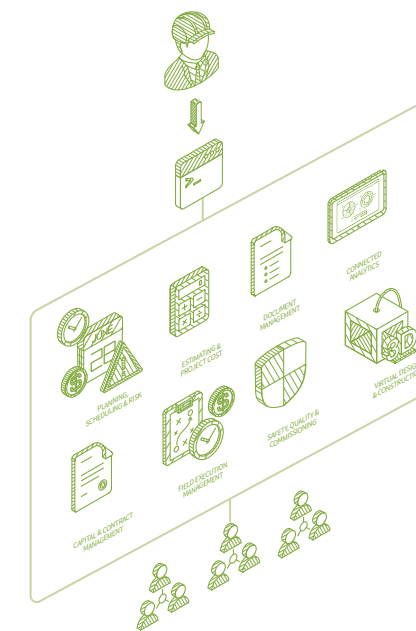
Cloud solutions are notorious for locking up your data, creating that uneasy feeling of losing control over what could be years of information and project history. InEight understands that it's your data, and we go to great lengths to give you full control over how you use it. For integrations with other enterprise systems, InEight makes robust, standards-based APIs available to create seamless interactions with third-party or in-house developed solutions. For a no-code solution to integrations, InEight offers a connector to create workflows between InEight and more than 300 popular business applications and services to synchronize files,

get notifications, collect data and more. Finally, InEight gives you an optional, secure SQL database connection with the ability to write queries, extract data and support third-party reporting applications.

InEight provides the best of both worlds: a modular cloud solution for easy collaboration with no IT burden, combined with unfettered access to your data to support enterprise integrations and business continuity. That's a solution that makes everyone smile — from business users to field teams to information security.

## 8 Must-Haves for an Integrated Project Controls Platform

Complex capital construction projects and programs are becoming even more complex these days. Traditional, disparate construction processes and systems struggle to keep up with the ever-growing demand for greater project certainty. As project stakeholders look to evolve, an integrated project controls platform becomes a vital solution to overcome these growing challenges. Here are eight must-have features to look for, which can streamline workflows.



1. Accommodates the full project life cycle
2. Supports varying project types with standardized processes and workflows
3. Allows for sophisticated risk management and scenario planning
4. Enables construction-specific document management and control
5. Provides for real-time budgeting, earned-value reporting and forecasting
6. Controls changes from issue to change order
7. Facilitates effective resource and crew management
8. Provides a common data environment with actionable reporting and analytics

To be competitive and deliver project certainty in an increasingly complicated capital projects world, you must have an integrated, comprehensive platform. With easy access to seamless flows of real-time project and program data across the entire life cycle, the right integrated capital project management platform should produce more predictable outcomes, more often, and more satisfied stakeholders across the board.





# ANALYTICS & REPORTING

## Make Better Decisions With Better Information

Any discussion of project and program reporting must start with data quality. To control and communicate the vast amounts of information that come along with complex projects — including schedules, costs, change orders, contracts, labor, materials, equipment and more — you need a reporting and analytics solution that connects to quality data and can easily turn real-time project information into actionable insights. InEight Analytics & Reporting emphatically checks both boxes, providing the perfect combination of high-quality data you can rely on, along with self-service reporting, dashboards and analytics.

## Hundreds of Pre-defined Reports and Dashboards Are Just the Beginning

InEight Analytics & Reporting takes the latest project information and delivers it in the form of audience-friendly, highly visual reports and dashboards. Choose between creating your own custom dashboards or get started right away with more than 200 pre-built, industry-standard reports. With InEight, not only will you streamline project and program communication across your organization and others, you'll also simplify integrations to seamlessly connect InEight information with other enterprise software.



hundreds of predefined reports or create customized dashboards, each project team member — across all stakeholders — can get the information they need to perform their role with minimal effort.

The best part? InEight reports and dashboards use near real-time data, leading to earlier risk avoidance, more timely decisions and increased confidence in the information.

Rather than waiting on someone to send reports, each team member can run the reports they're authorized to view whenever they need them, including specifying report settings like filters and date ranges, so they get just the information they need. Alternatively, users can sign up for report subscriptions and get the exact reports they need sent right to their inbox on a scheduled frequency.

## Give Project Teams the Power To Answer Their Own Questions

Nobody wants to be waiting on someone else to provide the information needed to make a decision or take action. That's why InEight Analytics & Reporting puts so much emphasis on self-service. We believe project team members should be able to create their own dashboards, without waiting for IT or specialized consultants to do it for them.

To achieve that vision, InEight embeds the award-winning Microsoft Power BI, complete with pre-defined dashboards you can customize to your heart's content. With logical views of the InEight data ready to use out of the box,

InEight Analytics & Reporting provides instant access to infinite amounts of data, resulting in better decisions and less risk in capital construction projects.

**75%** less time spent finding answers vs. combing through static reports

**50%** or more reduction in time spent preparing and distributing dashboards and reports



Instant access to dashboards and reports from the web and mobile devices

## Resources

[Connected Analytics Trends in Construction](#)

[Project Data: Begin With the End in Mind](#)

[The Full Value of Portfolio Analytics for Your Construction Projects](#)

*“Gearig started this journey looking for a software solution and quickly changed our thinking. Instead of picking software, we picked a business partner who was innovative, evolving and growing.”*  
– **Mark Johnson** - Business Development, GEARIG CIVILWORKS

### BUILD

Spend less time wrangling reports and more time analyzing key information.

### CONNECT

Harness the built-in power of Microsoft Power BI to create and share your own dashboards.

### INNOVATE

It's your information — don't settle for cloud solutions that lock up your data.

## Automated Reports Provide 360-Degree Visibility to Projects and Programs

Everyone on the project team needs information to do their job's cost reports, field reports, earned value reports, safety metrics and everything in between. The biggest challenge with traditional project reporting is the time it takes to generate and distribute the reports. Data must often be mashed up from various sources into Excel spreadsheets by a heroic “data wrangler” employing mystical powers such as mass copy and paste, external workbook references and even a macro or two. And by the time the report is generated and sent out to everyone, it could be out of date, or it could generate a slew of questions that weren't anticipated in the report.

There is a better way. InEight Analytics & Reporting provides a full spectrum of options to simplify the often tedious and time-intensive process of keeping project team members informed. Whether you choose from the





# ANALYTICS & REPORTING (CONT.)

authorized users are just one click away from creating that newly required dashboard that just came up in the last team meeting. Rather than trying to figure out how to extract data and run database queries, with InEight you can just pick the information you want to include and decide how you want it to look in the dashboard. Pie charts, trend lines, heat maps — all of Power BI's most powerful visualization options are right at your fingertips. Choose with whom you want to share the dashboard, and everyone is off and running.

Anyone with access to an InEight dashboard can get to it in seconds with only a web browser or a mobile device. What's more, unlike static PDF or Excel reports, the built-in analytics capabilities in the InEight solution enable users to drill into the data, find relationships and patterns, and get answers to questions in record time.



## Connect Project Reporting Across Enterprise Systems

InEight recognizes you may have many sources of information that are of interest to project teams. That's why InEight Analytics & Reporting is built to coexist with other systems in numerous ways. First, you can embed dashboards generated from other systems into InEight dashboards, so that project team members only have one place to go for all the latest information. Second, you can take advantage of robust reporting APIs to generate

reports that combine InEight data with data from other enterprise systems. Finally, what if you want a full copy of your InEight data in a separate database that you can access directly, preferably updated continuously in near real time? Not a problem. InEight Replicate gives you a secure SQL database connection with the ability to write queries, extract data and support third-party reporting applications.







# BILLING MANAGEMENT

## Get Paid On Time Without the Headaches

With InEight Billing Management solution, contractors can simplify the often-complex step of calculating earned revenue to streamline the billing process and eliminate unnecessary delays and disputes. Once you define what drives revenue, InEight can automatically calculate billable amounts based on the information you're already collecting for other purposes, such as quantities completed, employee time and incurred expenses.

With InEight, you not only generate the information you need for billing in a timely manner, but you can also generate the backup documentation required to support the bill. These will speed up time to payment by eliminating the back and forth that occurs when questions come up about the bill.

### BUILD

Define earnings rules based on specific contract requirements to automatically calculate billable revenue.

### CONNECT

Generate revenue and profitability forecasts that stay current with project changes.

### INNOVATE

Use dynamic integrations to keep revenue and billing status in sync with financial/ERP systems.

## Structure Pay Items or Payment Milestones To Meet Owner Requirements

For projects with specific payment milestones, you can use pay items in a parent-child relationship to calculate billable amounts at the level of detail required by the owner. For each pay item, you can specify earnings rules, which define how earnings are calculated. For example, a project including a pipeline might specify the percentage of that scope of work that can be billed based on excavating the trench vs. installing the pipe. You can even specify when those earnings kick in — when the work

starts, continually as the work progresses or when the work finishes.

At the other end of the spectrum, earnings rules for time and material contracts can be quite simple — your earned revenue can be calculated based on the hours worked multiplied by a billable rate for each type of labor involved, along with expenses incurred for materials or subcontractors.

## Calculate Revenue Based on Contracts and Work Performed

Once you've defined your earnings rules, InEight can automatically track and calculate earned revenue based on movement against any of the earnings drivers. This means the daily work progress your teams are submitting using the InEight mobile app can automatically turn into calculated earnings. The same goes for the labor and equipment hours coming in on daily or weekly timesheets — those can be processed against agreed-upon billing rates to automatically calculate earned revenue for cost-plus or time and materials contracts.

## Create the Most Accurate Revenue Forecasts

For most construction projects, revenue forecasts are a moving target. Frequent changes to project scope and schedules are no longer current that business managers rely on. With InEight, approved change orders can be quickly turned into contract changes, automatically updating your revenue forecasts. What's more, even pending change orders can be incorporated into your revenue forecasts using probabilities of approval. By including change order probability within your forecasted revenue, you can gradually account for the impact of a change as confidence grows (or declines) in its likelihood of approval. This means you can avoid major surprises and big swings in the forecast, while providing ongoing transparency around change order approval probability.

## Get an Always Current View of Profitability

Instead of relying on traditional end-of-month financial processing, our software gives you continual updates into a project's revenue, budget, forecast and percent complete. Project teams can see at a glance where there are discrepancies between forecasts and actual work completed — and focus their efforts on improvement.

When you manage both costs and revenue with InEight, you get a near real-time view of expected profitability. At any point and at any level of the budget, you can compare forecasted costs to forecasted revenues, with built-in metrics such as margin, margin percentage, revenue earned vs. billed, and remaining revenue.

InEight integrates with financial and ERP systems to connect billing and payment status, and provide immediate, real-time data. This eliminates the need for manual updates and separate systems among project teams. With InEight, you can improve communication and visibility to revenue projections, streamline billing cycles and focus your attention on detailed analysis rather than redundant data entry.

Work from a single source of truth for revenue and forecast information.

**80%** reduction in the time it takes to calculate earned revenue



Eliminate payment delays with detailed backup to support the bill



Improve forecasting accuracy for all capital projects



Analyze profitability at the line-item level

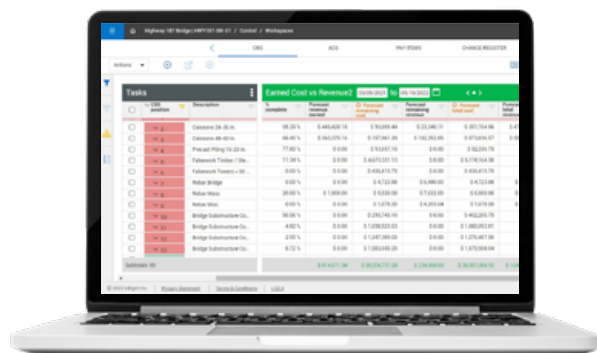
## Resources

[How to Protect Your Profits from Construction Project Changes](#)

[A Bottom-Up Approach to On-Time, On-Budget Projects](#)

[Top 10 Best Practices for Month-End Processes](#)

*Simplify the often-complex step of calculating earned revenue to streamline your billing process and eliminate unnecessary delays and disputes with InEight Billing Management.*







# BUILDING INFORMATION MODELING / DIGITAL TWIN

## Unleash the Power of Building Information Models

Complex construction projects come with a number of challenges that can be solved with advanced BIM software — throughout every phase of construction.

Most projects involve multiple disciplines and that means multiple 3D models created in disparate design systems. So how do you provide a common repository of design data for the entire project, so everyone on the team knows where to get the latest design information? InEight Building Information Modeling/Digital Twin makes it easy, providing a federated view across all the models that make up the project, taking design data access — and model-based reporting — to new heights of efficiency.

With InEight, project teams can easily leverage accurate model data from a single source of truth to perform critical project controls functions. Estimators and work planners need components and quantities that come from the model. Designers and engineers need models to perform design reviews and clash detection prior to

construction. QA/QC and commissioning managers need to ensure that all of a project's components and systems have been properly inspected and signed off. InEight Building Information Modeling/Digital Twin not only supports these workflows, but it also makes it easy to use the model for visual reporting, such as color-coding the model by completion status.

And when the project is complete, InEight BIM/Digital Twin enables a living digital twin that brings together as-designed and as-built information, and connects it with project documentation such as specs, warranty documents, quality inspection forms, jobsite photos and more. The digital twin becomes an immensely valuable asset to the owner/operator, replacing a mountain of paperwork and disconnected electronic files with a structured, searchable digital record that can be accessed simply by interacting with the model.



metadata. In fact, when it comes to expanding or cleaning up model data properties, common data operations from InEight create the opportunity to turn tedious, multi-step routines into repeatable, automated procedures that run with a single click.

InEight makes it easy for each user to access just what they need to see. Users can easily turn on or off specific models in the aggregated set and run global filters to look at components with specific properties across all the models. You can even save views to provide one-click access to all the information relevant to a specific purpose, for example, the profile view of all the concrete footings.

## Go Beyond Design Coordination by Connecting Models and Design Data to Project Controls Workflows — Without All the Manual Effort

The most common use for BIM solutions is to perform design coordination. InEight delivers by providing world-class functionality to support clash detection and collaborative design reviews, making it easy to identify design changes and conflicts. Going further, the InEight solution allows you to track and manage coordination issues — including visualization of those issues in the model — until they reach resolution. And because the InEight solution runs in the cloud, it's easy for all the relevant stakeholders to participate in the process.

Looking beyond design coordination, project teams have long recognized the value of utilizing models to support other project workflows. The challenge has always been the massive manual effort involved in doing that and the risk of error associated with constantly processing data through Excel to share between disparate systems. InEight

Our comprehensive Building Information Modeling/Digital Twin software delivers a common repository to connect design, construction and maintenance workflows throughout both project and asset life cycles.

**200%** increase in design coordination efficiency across stakeholders

**75%** reduction in time spent importing and exporting data between design systems and other enterprise systems

**50%** reduction in time spent searching for current design data to support construction and maintenance activity

## Resources

[Seeing Reality: The Digital Thread and Digital Twin](#)

[Day-One Project Visibility With Today's Best Modeling Tech](#)

[Why 3D Model Visualizations Are So Important for Capital Projects](#)

*BIM/Digital Twin allows project teams to easily leverage accurate model data from a single source of truth to perform critical project controls functions.*

### BUILD

Aggregate, clean up and tag design data across multiple disciplines within a common BIM environment.

### CONNECT

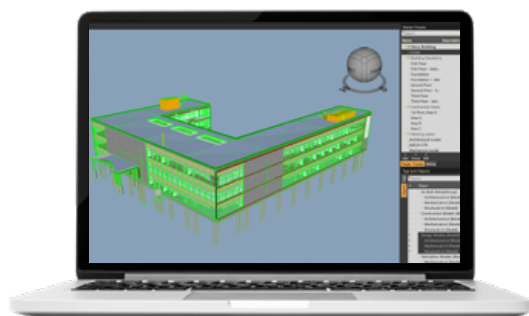
Improve collaboration across the entire project team by connecting model data to workflows such as estimating, design review, work planning, quality and commissioning.

### INNOVATE

Create digital twins to support ongoing asset maintenance by connecting as-built models with project documentation, photos and inspection forms.

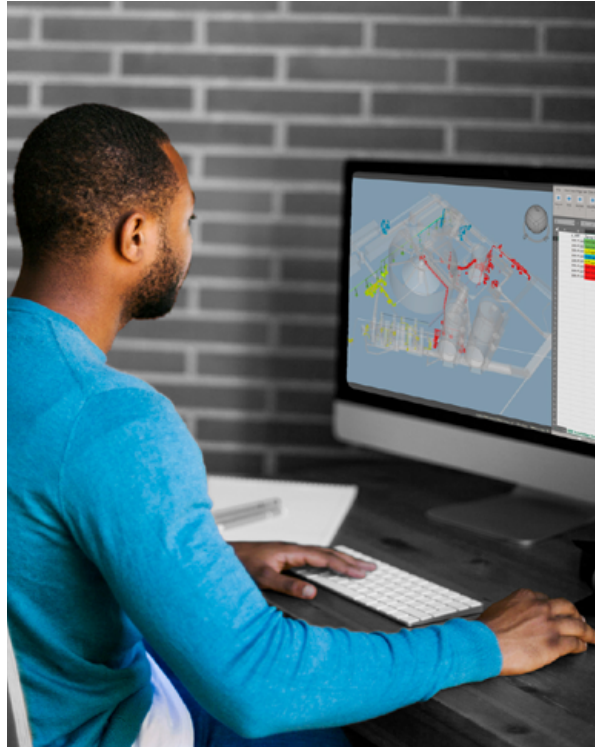
## Drive Project Team Efficiency With Access to a Single, Common Repository of Design Data

InEight BIM/Digital Twin loads models from popular design systems to provide an aggregated view across all disciplines, ensuring teams are always working from the latest design data. The system is designed from the ground up to support the largest, most complex projects, providing excellent performance whether you're navigating through 3D visualizations or updating and adding design





# BUILDING INFORMATION MODELING / DIGITAL TWIN (CONT.)



BIM/Digital Twin integrates with the rest of the InEight platform to create highly efficient workflows for estimating, document control, work planning and packaging, quality, startup and commissioning, visual reporting and more.

With the built-in connections to other InEight solutions, estimators can simplify quantity takeoff by integrating counts and quantities from the model directly with the estimate. That way, if the model changes, estimates can be updated with new quantities in seconds. Similarly, work planners can use a visual, model-based process to create logical work packages containing the required components to be installed in each package. Document controllers can also leverage the model to associate any kind of project documentation to elements in the model. For example, you can click on a conveyor system in the 3D rendering and see all the relevant specs, warranty documents, even photos and videos. Lastly, users can connect models to inspection and test plans, and commissioning and startup activity, to provide the full visual context of the model for all the stakeholders collaborating on those critical activities.

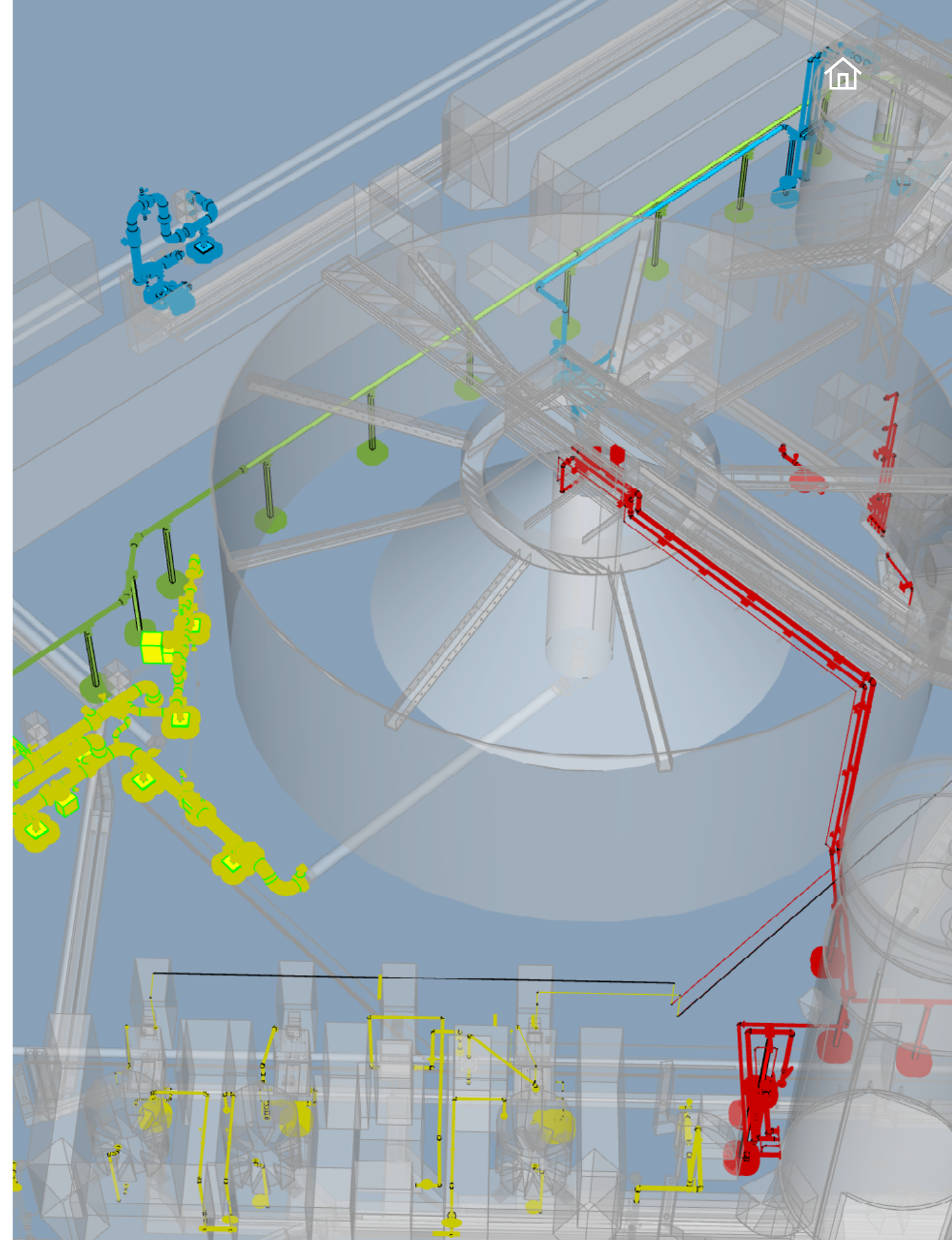
## Plan for the Long Game With a Digital Twin To Support Operations and Maintenance

At the end of construction, it's critical for the owner to have a solid foundation on which to operate and maintain the asset that was just built. The InEight solution is that foundation, providing a digital twin to the constructed asset. This digital counterpart becomes a living, continuous representation of the asset over time. The digital twin gets updated to reflect design changes and also captures new information relevant to the operation of the asset, such as completed inspection forms and data from expansion and maintenance projects.

In short, the digital twin becomes the single source of truth for design data, fabrication data and construction and maintenance project data that will serve as a valuable resource for anyone involved in operating and maintaining

the asset. The InEight solution puts important, but often hard-to-find, information at your fingertips. Want to know more about a piece of equipment or system in a building, such as when it was last inspected? Just click on it in the model and see all of the relevant documentation and completed forms associated with it.

With InEight, you can replace siloed systems, manual data entry and repetitive tasks with a single platform that connects all the dots. A digital twin powered by InEight is a powerful opportunity to bring order to the complex, multi-stakeholder workflows and massive amounts of data associated with constructing, operating and maintaining capital assets.







# CHANGE ORDER MANAGEMENT

## Mitigate Risk With Full Life Cycle Change Order Management

Complex construction projects almost always have changes. How you manage them can make all the difference in delivering projects successfully. Two key factors in successful change order management are early identification and continual visibility. InEight Change Order Management provides early visibility by capturing potential changes long before they have an impact, allowing you to begin an audit trail of everything related to the issue. The InEight solution also delivers continual visibility in a single place where all issues, potential change orders, and approved change orders can be viewed for the entire project, so team members can see and manage all the activity of the changes assigned to them.

Of course, successfully managing change goes well beyond the tracking and documenting of issues. Changes

can impact the project in numerous ways, so the InEight solution makes it easy to update control budgets, cost and revenue forecasts, and contracts as changes go through their evolution. Change orders can even be priced out with cost and revenue to go along with the supporting documentation for approval. With user-configurable workflows, notifications and dashboards, everyone on the project team has full visibility to the changes they need to review and approve.

While it's likely not possible to eliminate changes altogether, it is possible to have greater visibility and predictable workflows to manage them. InEight Change Order Management eliminates surprises and keeps changes under control, so project delivery stays on track.



With InEight, you can capture or create issues from the field or the office using mobile or desktop devices. Group, add and remove issues related to a potential change order, and even price out change orders directly in the tool using resources and billing rates, markup and margins, and more. The system provides everything needed to submit a change order through the approval process, including all of the backup documentation that supports the change. The result is less disputes and faster cycle times for change order approvals.

### Update Budgets, Forecasts and Contracts From Pending and Approved Change Orders

Often times, the toughest part of managing change orders is updating budgets and forecasts to include their impact. The InEight solution makes it easy to close that loop, providing flexible options to ensure that critical step is not overlooked. As an example, the project's control budget can be updated to include the cost associated with approved change orders. Likewise, cost and revenue forecasts can be updated to reflect the value of changes, including probability values for contract changes that have not yet been approved.

Because InEight brings financial management and change order management under one roof, it's easy to take advantage of full traceability since every change order contains a living history with supporting documents, photos, responsible parties, pricing and more. Multiple stakeholders and large or decentralized teams can see the impact of each change with full context.

Protect your profit margins with robust change management software that provides immediate visibility into potential and existing issues.

**30%** quicker processing of change order approval cycles

**25%** less time updating contracts from approved changes

**30%** reduction in time spent updating budgets and forecasts to account for pending and approved changes

### Resources

[Understanding the RFI Submittal Process](#)

[Mitigating Risk by Integrating the Right Change Management Tools](#)

[Capturing the Full Benefits of Construction Change Order Patterns](#)

*Get early visibility by capturing potential changes long before they have an impact with InEight Change Order Management, allowing you to begin an audit trail of everything related to the issue.*

### BUILD

Start tracking potential changes the moment they arise, whether from RFIs, field issues, or scope and design changes.

### CONNECT

Manage the impact of pending and approved change orders across your entire business, including cost and revenue forecasts, contract management, and project reporting.

### INNOVATE

Stay in control of changes as they evolve with configurable workflows, dashboards and notifications across all the relevant stakeholders.



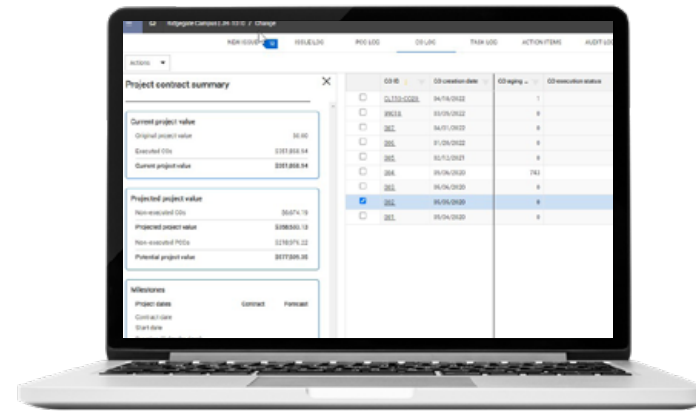
### Stay in Control of Changes From Initial Issue to Approved Change Order

Changes come along in many different forms, from RFIs to owner directives, from design changes to unexpected conditions at the jobsite. InEight Change Order Management recognizes this fact. It enables issues to be surfaced in the changes log from many different sources, including from daily field reports submitted on a mobile device, annotations on drawings and responses to RFIs. The InEight solution provides superior capabilities to manage each issue, no matter how it originates. This includes status and team member assignments/ball in court, notification dates, action items and links to related documents, drawings, photos and emails.



# CHANGE ORDER MANAGEMENT (CONT.)

Changes can have varied, and even multiple, impacts on a project. A design or scope change can adjust the prime contract, as well as subcontracts and vendor agreements. That's why InEight Change Order Management integrates seamlessly with our contract management solution. An issue can be linked to a contract or vendor agreement when it reaches a certain point, and all activity related to the change becomes visible directly in the context of the contract. That means what used to be two separate steps is now one, providing an integrated approach that ensures upstream and downstream contracts stay in sync, and a full audit trail of available for every contract to show pending and approved changes.



## Eliminate Surprises With Full Visibility to Change Order Trends and Status

With a fully integrated approach and a single source of truth for all project changes, the InEight solution greatly simplifies workflows, notifications and reporting relative to change activity. Out-of-the-box dashboards provide trend charts showing new issues and change order approvals over time, as well as ranking of changes by type and dollar value.

Users can gain valuable insights from across your portfolio in real time, as there is no longer a need to wait for the project to complete to get actionable information and lessons learned.

Throughout the change process, configurable workflows can be triggered based on project roles and approval thresholds, ensuring that every team member knows when the ball is in their court for review or approval. Workflows are also supplemented with notifications and emails, making sure that review and approval cycles are efficient and don't get stuck waiting for the next step.







# CONTRACT & PROCUREMENT MANAGEMENT

## Now Managing Contracts Can Move at the Speed of the Project

Complex construction projects put intense pressure on contract managers to ensure the right materials and services are procured in a timely manner. When that doesn't happen, projects can suffer costly schedule delays and diminished productivity.

Instead of managing subcontractor- and vendor-related activities from siloed tools or financial systems, our software gives you the ability to manage the entire contract management process from a single platform designed specifically for the project team. That means contract managers can easily view and leverage data made available through other project processes, such as document control, budget and forecast management, change management, work planning and work progressing. This connected approach means contract managers can plan their procurement and contract activities in full alignment with the current project scope and status and react swiftly to changes.

Our software is specifically designed to manage the entire contract management process, from procurement planning through contractor and supplier selection, and from contract creation through pay request approval. Along the way, the system integrates with other project roles to eliminate redundant data entry, such as pushing commitment amounts from contracts to project forecasts and pushing subcontract scope and line items to work planning and field teams to coordinate the work and provide progress updates.

Plus, InEight Contract & Procurement Management can integrate directly with your financial/enterprise resource planning (ERP) systems. That means project-level contract management activity can easily stay in sync with corporate systems, from purchase order creation to payment status. All stakeholders involved in the process, either in the field or the back office, can collaborate in one platform and trust that the financial systems remain in sync.

### BUILD

Manage supplier and contractor selection all the way through contract creation, including approval workflows and electronic signature.

### CONNECT

Stay on top of contract deliverables, changes and payments through contract closeout, while staying in sync with corporate financial systems.

### INNOVATE

Connect with other project controls processes to create an end-to-end contract life cycle management solution.

## Shorten the Contract Creation Process

The InEight integrated solution gives you full visibility to project requirements, including estimates, budgets, schedules, work plans and project documentation. That means the information you need to plan procurement activities is always at your fingertips. Contract managers can start with bid buyout (from procurement planning to contractor/supplier selection) and quickly create contracts using standardized document templates filled with information collected during the process. Completed documents (contracts, change orders and more) can be sent for electronic signature using DocuSign.

## Don't Sweat the Details

Contract management requires a tremendous amount of information, and InEight gives you a single place to manage it all in a logical, intuitive way. Each contract can include contract line items, schedule of values, change order logs, back charges, payment forms and progress, supporting documents and more.

Moving up a level, contract managers get a clear view of critical information across all contracts, including invoices, vendor change status, accruals and receipts as well as action items.

## Keep Contract Approval Workflows on Track

Sometimes the hardest part of contract management is getting approvals from the right people in a timely manner. With InEight, you can define approval workflows for contracts, changes and payments based on dollar-value thresholds. Individual people can be assigned to participate in the workflows or use roles instead to notify whoever is assigned to that role on the project. In either case, everyone participating in the approval workflow gets notified when it's time for them to jump in, and with one click they can see the information they need to approve. The result is everyone knows if something's waiting on them, without wasting time playing phone or email tag.

## Manage Deliverable Progress, Payments and Contract Closeout

Once the contract has been approved, the InEight solution provides full visibility to progress the contract line items, including an integration with InEight Work Planning & Packaging to incorporate key field data as well. All the necessary information to support (or dispute) pay requests in a timely manner is visible in real time. Contract managers can use the InEight solution to manage payment forms, including taxes, retention, back charges and more. Robust workflow capabilities allow payment forms to be routed through the approval process and even post directly to the financial/ERP systems. You can link pay forms to supporting documents such as invoices and other documents received from the contractor or supplier to support claims or specific contract requirements.

When all the contract activities have been completed, you can utilize the contract closeout process to ensure that final steps for release have been performed and key lessons learned are captured for future process improvement.

## Integrate Procurement and Contract Activity with ERP Systems

Integrations between InEight Contract & Procurement Management and financial/ERP systems help to close the loop between the project team, the back office and the home office. ERP integrations can cover everything from POs to tax calculations for payment forms. The result is project teams get the tools they need to manage construction contracts with intense levels of detail, while easily staying in sync with corporate financial systems.

Efficiently manage contracts and procurement to keep project delivery on track.

**50%** or more reduction in contract creation time

**30%** faster workflows for contracts, change orders and pay requests



Reduce approval time with digital contract and payment approval workflows

## Resources

[The Role of Contract Retention in Construction](#)

[How Managing Contract Retention Can Save You Time and Money](#)

[What To Know When Developing Capital Project Contracts](#)

*InEight Contract & Procurement Management software is specifically designed to manage the entire contract management process, from procurement planning through contractor and supplier selection, and from contract creation through pay request approval.*



# COST BUDGETING & FORECASTING

## Control Project Costs and Forecasts To Eliminate Surprises

Complex capital construction projects go through many changes as they evolve, both before and after construction starts. One of the most critical aspects of project controls is the ability to keep budgets and forecasts aligned with the latest data and assumptions, and at the level of granularity required by project stakeholders.

With InEight Cost Budgeting & Forecasting, you can manage a project's budget using an intuitive cost breakdown structure (CBS) appropriate for the project, while still supporting an account code structure required for corporate financial reporting. And unlike spreadsheets, the InEight solution enforces a disciplined, auditable cost control process and connects directly to related functions such

as estimating, field data capture, contract and procurement management and change order management.

The result is near real-time visibility into cost performance and potential impacts on the forecast. While some project team members might only need monthly cost reports, others might need daily "estimated actuals" or earned value metrics, with the ability to drill into the details and answer the question "where did that number come from?" The InEight solution covers the full spectrum, providing the project team what they need — when they need it — while supporting integrations to "true up" with financial/ERP systems.



Our collaborative Cost Budgeting & Forecasting software empowers contractors to create accurate forecasts and budgets based on real-time metrics.

**90%** reduction in the time spent generating cost reports



Stay in control of budget versions and budget changes



Dramatically improve forecasting accuracy



Integrate with your ERP system to simplify month-end close

### BUILD

Create a baseline budget directly from the original estimate and easily manage changes to the budget over time.

### CONNECT

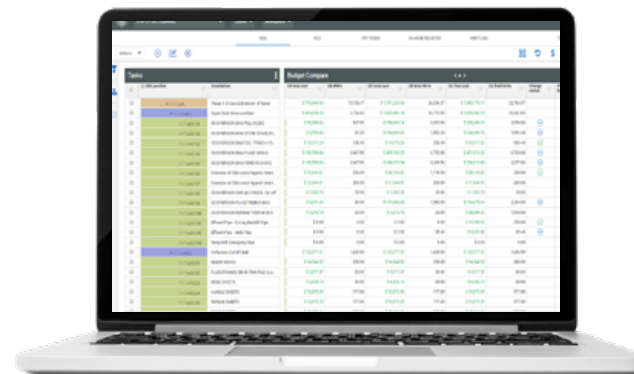
Collaborate with project stakeholders to deliver the most accurate forecast.

### INNOVATE

Integrate with ERP and scheduling systems to keep project budgets and forecasts aligned with other corporate systems.

## Manage Budget Versions With Full Change Control

You can start with an estimate and turn it into a budget, organized in a logical cost breakdown structure and maintain all assumptions such as resource rates, labor and equipment hours, productivity assumptions and more. When you're ready, lock in the original budget to preserve it as a baseline. From there, you can manage changes to the current budget using built-in tools to easily process budget moves, quantity changes and contract changes. The system keeps a full audit trail of every change, down to the line-item level, so you can always trace through how you got to the current budget number for any scope of work.



## Take Forecast Accuracy to a Whole New Level

A cost forecast is one of the most important and highly scrutinized reports delivered by any project team. The key elements for accurate forecasts are current progress information (what's been done), along with any changes to current assumptions (what's still to be done). InEight puts that information at your fingertips, enabling you to see current commitments, percent complete and actual costs to date for any budget line item, along with any pending or approved changes.

Against that backdrop, you can forecast the cost at completion using the most appropriate method for each line item. A variety of forecasting methods are available, including commitments, average performance to date, plus straight-line and manual forecasting, which can leverage numerous performance factors. You can even do a bottom-up forecast by estimating resources and hours for the remaining work. Need to compare forecasts? You can create multiple versions of the forecast with different assumptions — for best-and worst-case scenarios.

Once complete, teams can review and compare multiple versions of the forecast or compare this month's forecast to last month's to see what's changed. The approved forecast will then become the basis of project reporting and act as a single source of truth between project teams, managers, collaborators and stakeholders.

## Resources

[Understanding the Advantages of Time-Phased Budgets](#)

[Forecasting for Success with Today's Best Project Tech](#)

[Overcoming Today's Limited Quote Shelf Life](#)

*"The benefit of having data from multiple systems in one data library is huge!"*

**- Nathan Kitzman** - Senior Project Controls Estimator, COMED

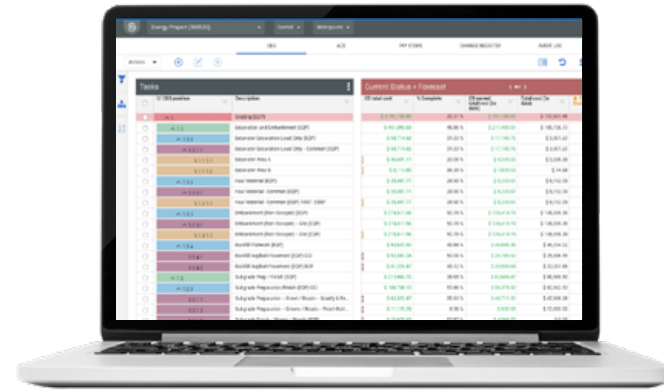




# COST BUDGETING & FORECASTING (CONT.)

## Create Time-Phased Budgets With Ease

InEight Cost Budgeting & Forecasting allows you to add the element of time with integration to scheduling software (or manual entry of schedule details). Want to show budgeted costs over time? Just import (or enter) start and finish dates, then choose a cost curve such as bell-shaped or front-loaded to automatically distribute budgeted costs across the time period. Want to specify exactly how much cost is expected in each time period? The system makes it easy to specify varying forecast amounts by period to deal with advance or deferred payments, work pauses and custom ramp up/ramp down patterns. All of which means you can now ensure budgets, forecasts and schedules stay in alignment.



## Continually Assess Project Cost Performance

With InEight, your budgets and forecasts are created by as-builts and work progress (percent complete). That means you can easily report on earned value metrics such as cost performance index (CPI) and schedule performance index (SPI), track variance trends relative to cost vs. budget, and automatically calculate numerous KPIs and performance factors relative to work hours, productivity, labor costs and much more. As a result, project teams using InEight spend more of their time making decisions and acting on them and less time gathering data and massaging disconnected spreadsheets.



## Deal With Change in a Collaborative Way

As project issues turn into potential changes, our software allows you to evaluate the impact of those changes on costs, durations and productivity — and manage the budget and forecast through those changes. Change order workflows managed in InEight can automatically turn into changes to the budget, even when new line items are needed in the budget. This creates a simple record of change for reference and reporting purposes — showing how each change affects the project's current budget. The end-to-end process ensures all approved changes are reflected in the budget and provides visibility to pending changes that may need to be incorporated into the forecast.





# DESIGN MANAGEMENT



## Bring a New Level of Certainty to Design-Build and Alternative Delivery Projects

Controlling design and engineering work is critical to on-time project completion. But this stage is inherently difficult to forecast and schedule, due to uncertainty surrounding the scope of work and the associated quantities. Whether you're managing design projects, or design-build projects, you need a high degree of certainty when it comes to the scope and deliverables. You need the ability to progress your work, manage your budgets and report on earned values to keep your design projects on track.

Meanwhile, project stakeholders need timely visibility to the status and expected completion dates for the design scope. Along the way, a critical success factor is managing the risk associated with design quantity growth. That means having a systematic way to forecast expected quantities of work as your designs pass through their progress milestones.

InEight Design Management is the answer to all of these challenges. Not only does it put you in control of design scope, design deliverables and design qualities, but when combined with InEight Document Control & Turnover, it also helps you manage review and approval workflows associated with design documentation. Most design organizations use multiple design systems. The InEight solution can provide a common repository for all design documentation with full version control and customizable

review workflows for drawing packages. And the best part is, the InEight solution runs in the cloud, so it's easy to collaborate with anyone on the project team, inside or outside of your organization.

Of course, design work generally precedes construction work, and coordinating both for design-build projects is an exercise overflowing with risk and fraught with continuous change. As construction planning evolves, designers must react to construction needs and schedules. That's why design-builders and EPC firms can go beyond design management and take advantage of other solutions that comprise the InEight integrated project controls platform. InEight provides a superior combination of functionality, integration and collaboration to help you control the scope, cost and schedule of any project or program — from pre-planning through turnover.

InEight Design can use earned value management (EVM) to bring more detail and credibility to the design and engineering phase. Earned value management allows you to track progress on a design project more accurately, avoiding last-minute surprises and overly optimistic reports.



90-IFC. At each milestone, you can also forecast the quantities of work called for in the current design with a full quantity change log to drive accountability. The InEight solution provides the visibility required to manage quantity growth risk as well as update the overall project budget and schedule.

## Stay in Control of Design Project Budgets and Earnings With Earned Value Management

InEight Design Management doesn't just manage the progress of scope and deliverables, it also puts you in control of the financial aspects of the project, including cost vs. budget, earned hours, and even earned dollars to support billings. For each deliverable, you can use rules of credit or claiming steps to automatically calculate percent complete as each step is accomplished. The system uses those percent complete values to provide professional charts and dashboards showing EVM metrics and trends. The result is a consistent framework to track and report on design progress and earnings, which greatly minimizes questions and billing disputes.

When it comes to your design budget, the InEight solution can also be used to manage and forecast costs based on the latest deliverable quantities and work remaining, along with the expected production rates for the designers and engineers assigned to each deliverable. With a single point of entry to update design progress, InEight provides a unified solution to manage both design status and design budgets.

Using AI to design and execute highly accurate engineering plans.

**10%** reduction in engineering costs

**50%** reduction in time spent managing design documentation and drawing review workflows

**20%** reduction in risk associated with design quantity growth

## Resources

[Leveraging the Full Value of Earned Value Management](#)

[How Digital Engineering Improves Construction Project Performance](#)

[3 Areas to Consider When Investing in a Digital Engineering Solution](#)

*"InEight Design benefits the organization by standardizing processes across different projects and generating significant reporting fidelity, which aids in making critical data driven decisions to mitigate potential risks."*

– **Nidhi Jain** - Director of Engineering Project Controls, Kiewit

### BUILD

Stay in control of engineering project scope, deliverables and design quantity forecasts.

### CONNECT

Manage engineering project budgets, earned values and document workflows.

### INNOVATE

Get full visibility across design and construction with a comprehensive project controls solution for design-build projects — before the build starts.

## Manage Deliverable Progress, Payments and Contract Closeout

InEight Design Management gives you the power to manage your design scope and deliverables with certainty and confidence. First, break the work down into the appropriate scopes and assign resources to accomplish the work. Resources can be skill levels or classifications,

stakeholder roles or specific people. By assigning design resources to design scope, you can ensure resource capacity is aligned to project requirements and dates. As design work progresses, you can then track the progress of each deliverable through milestones such as 30-60-

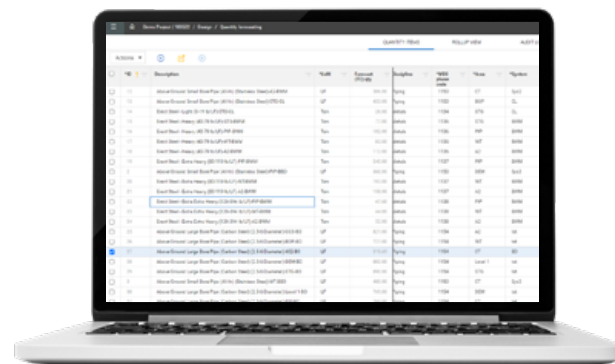




# DESIGN MANAGEMENT (CONT.)

## Provide a Common Platform for Design Documentation and Drawing Package Workflows

The design and engineering process creates a massive amount of documentation. When you add InEight Document Control & Turnover, you get a common repository in which to store all those drawings, piping and instrumentation diagrams, specs and other documentation.



You also get a foolproof way to manage review and approval workflows that span many people, including a multitude of stakeholders. With InEight, you can easily collaborate with people inside and outside of your organization, with participants receiving proactive notifications when things have changed or there is something to review. No more playing phone and email tag to get through review and approvals. Every required deliverable can be stored in the system with full security and access control. The system automatically tracks versions of each deliverable to drive traceability as the project evolves and design decisions are made.



## Align Design Work with Construction Work for Design-Build Projects

For design-build and alternative delivery projects, one of the biggest risks is keeping construction budgets and schedules in sync with design work. When will each design package be completed? What do the designs look like so quantities can be taken off? Project stakeholders need to understand the impact of these questions on the project's overall budget and schedule.

The InEight integrated project controls platform provides a solution to all of these challenges. InEight Design Management can be coupled with the rest of the InEight platform to form a comprehensive solution for design-build project controls. With InEight, project teams can manage construction budgets, schedules, work plans, contracts, procurement plans and much more — all on the same platform. Bringing design work and construction work together under the same umbrella is the best way to ensure continued alignment — and proper expectations — as the project's scope, cost and schedule evolve.







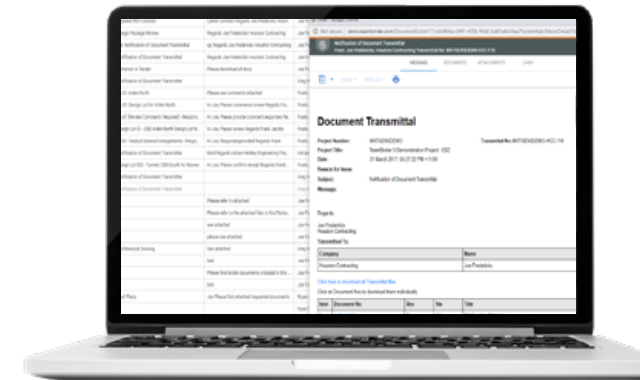
# DOCUMENT CONTROL & TURNOVER

## Give Everyone on the Team a Single Source of Truth for Project Information

It's a fact: construction professionals spend hours every week searching for project information. Now multiply that by hundreds of people on a complex capital project, all of whom need to find a specific drawing, document or email to keep the project moving forward. That's a lot of time wasted. Often, the inability to locate the right project documents at the right time results in communication delays, or worse, costly rework when decisions are made based on outdated documents.

InEight Document Control & Turnover provides an easily accessible, cloud-based platform that puts the latest project information at everyone's fingertips. With world-

class security, instant search and informative dashboards, all the project's stakeholders can work together with efficiency and confidence, no matter what their role. Along the way, the system automatically takes care of version control and only makes the latest version of a document available, which eliminates costly mistakes. And when the project is complete, the InEight solution simplifies the delivery of turnover packages, and puts all the required project documentation in the owner's hands in the form of a digital archive for ongoing operational reference.



document repository, or automatically store in the repository the documents generated by those solutions.

Adding InEight Document Control & Turnover to a project is like hiring everyone on the team a trusty assistant — one who instantly finds the document you need, tells you when there's something to review, and takes care of administrative and organizational tasks so you don't have to.

### Every Document, Drawing and Email at Your Fingertips

InEight Document Control & Turnover provides world-class document management capabilities such as secure access, version control and the ability to view hundreds of popular file types, without the need for specialized software. Users can access the solution from anywhere using their laptop or the InEight mobile application. The cloud-based platform makes it easy to add users outside of your organization to the project — with no IT assistance required.

Users can upload documents one at a time or take advantage of bulk upload features that can even automatically tag and categorize each document along the way. Everything stored in the InEight solution can be tagged with attributes, such as file format, version, dates, discipline and dozens of other user-defined tags. This makes it easy to find and organize information without having to worry about what folder it's in. In fact, what makes the InEight solution especially powerful is the ability to use virtual folders, enabling users to organize

Our collaborative software provides each individual with the latest, most complete data to make informed decisions on a project.

**90%** reduction in time spent emailing documents and attachments to team members

**75%** reduction in project document search time

**30%** reduction in RFI, submittal and other document workflows

### Resources

[Ending the Paper Chase: Digitalizing Your Construction Completions Now](#)

[A Simple Solution to Maintaining Productivity During Turnover](#)

[How Contractors Are Winning With Digitalized Document Management](#)

*"We can find documents in one place. You don't have to dig through multitudes of file servers and unstructured data all over the place. That's a big benefit."*  
- **Chris Cawood** - Chief Information Officer, OCEANAGOLD

### BUILD

Leverage a single source of truth for project information — from pre-planning to turnover.

### CONNECT

Keep projects on track with automated document workflows.

### INNOVATE

Integrate project documents with other project controls business processes for the ultimate in efficiency.

### Don't Just Manage Documents, Manage the Business Process

InEight automates document-related workflows to simplify the review process for drawing packages, RFIs and submittals, and any other document-centric business process. Each stakeholder can leverage customizable templates, forms and workflows tailored to their role on the project. The system notifies whomever is up next in a workflow, with full KPIs and status reporting, so every process stays on track.

InEight Document Control & Turnover is also integrated with other InEight solutions, dramatically speeding up critical project controls processes like work planning, field data capture, contract management and change order management. With the built-in connections, those solutions can provide superior context with instant visibility to the relevant documents in the





# DOCUMENT CONTROL & TURNOVER (CONT.)



their project information any way they want — by discipline then by document type, or maybe by status then by discipline. All it takes is a click to switch to the desired organizational view.

In addition to managing documents and drawings, you can easily manage project-related email communication with seamless integration to Microsoft Outlook. Once configured, you can simply use Outlook as you do today to send and receive emails. InEight makes it just as easy to find that important project email as it is to find that important project document.

With everything in one place, users can confidently access the latest document drawings and correspondence. The common repository eliminates the wasted time that comes with searching for documents scattered across numerous systems, not to mention the inefficiency of emailing attachments back and forth that become outdated almost as soon as you send them. And when the project is complete, InEight makes it easy to meet the contractual requirements for turnover. Contractors can deliver turnover packages in record time, and owners have flexible options for continued access to the data, including a structured, searchable trove of all the agreed-upon project documents and data to help manage the asset throughout its life cycle.

## Bring Order to Chaos With Digital Document Workflows

InEight Document Control & Turnover includes built-in functionality to manage engineering and construction document workflows. Drawing packages can be issued quickly and easily using customized transmittal templates — with full visibility to the receipt and review status for each recipient. If a new version of a drawing within the transmittal is released, automatic notifications of updates can be enabled. As another example, requests for information (RFIs) can be managed entirely through the solution, including annotating, or marking up, relevant drawings and documents, notifying the appropriate parties, and enabling digital correspondence to confirm assumptions or answer the questions posed in the RFI.

InEight also provides everything you need to manage submittals. A submittal register can be maintained to provide visibility to all the required submittals for the

project. Individual submittals can be digitally issued to the relevant company, including any documents needed for reference, so they can respond with their submittal deliverables directly through the solution. Once submittals have been reviewed and accepted, client review workflows can be initiated to complete the process. Along the way, InEight updates the status in the submittal log and notifies the appropriate users of changes or updates.

Whether for drawing packages, RFIs, submittals, or any other document-related workflow you wish to manage, InEight makes the entire process organized, efficient and predictable. There's no need to sift through numerous emails and attachments or wonder about the status of a workflow. Everyone has the visibility and information they need to perform their role, which in turn drives accountability and minimizes disputes and disruptions.



## Easily Connect Documents to Your Most Important Project Controls Business Processes

InEight Document Control & Turnover not only manages documents and document-related workflows, it also connects to other InEight solutions to support critical project controls business processes. For example, you can connect to InEight Work Planning & Packaging to easily associate documents and drawings to work plans, providing field teams with the context they need to plan and execute their work. You can connect to InEight Contract & Procurement Management to easily associate documents to contracts, providing valuable reference information that helps define the scope of the contract.

With the connection to InEight Change Order Management, you can associate an RFI response, photos and annotated documents and drawings to new issues and potential change orders, providing extra context for

the nature of each change as it progresses through the approval life cycle. And with the connection to InEight BIM/Digital Twin, you can create a direct link between model elements and their associated documents, photos and other files stored in the document repository. Imagine being able to click on a piping system in your 3D model and instantly see the relevant documents for it, such as specs, as-built photos and supplier information.

The best part is the documents remain in the common document repository, which means they are always up to date. There's no need to make copies, email them around, or upload them into other systems. InEight Document Control & Turnover provides the collaborative framework you need to connect people, information and business process.





# EARNED VALUE MANAGEMENT

## Gain a Complete Picture of Project Health With EVM Metrics

At InEight, we believe in the power of digital to deliver valuable, real-time insights about a project. For complex engineering and construction projects, it's essential for all stakeholders to have clear visibility to how the work is progressing in relation to both the schedule and budget. Earned value management (EVM) is a preferred framework to do exactly that, while providing an objective view of the value of the work delivered. InEight Earned Value Management automatically tracks and reports on industry standard EVM metrics to give you a holistic picture of project status — including SPI and CPI, plus earned value (EV), planned value (PV), actual cost (AC), estimate at completion (EAC) and many more.

With InEight, you can effectively monitor costs, schedules, work hours and other project performance factors with minimal effort and a high degree of efficiency. That's because InEight connects to other critical business

processes — such as budgeting and forecasting, scheduling and field data capture. You can even integrate InEight Earned Value Management with financial/ERP systems to import actual costs. By leveraging those connections, engineering and construction teams can easily capture daily progress — including from mobile devices in the field — and parse through rules of credit to automatically calculate percent complete. With that key value, the solution automatically calculates and reports on all the key EVM metrics. No side spreadsheets to keep current and no manual creation of reports at the end of the month.

InEight Earned Value Management provides owners, designers, engineers and contractors with a common, subjective basis for acceptance of work completed, along with the ability to rapidly identify trends and see which project areas are at risk of schedule or budget overruns.

within a flexible cost breakdown structure. The budget can include both costs and work hours for each budget line item. With that as the foundation, all you need to get updated earned values and EVM metrics is percent complete, which can be entered manually, imported from Excel, or fed continuously from InEight Field Data Capture. Most importantly, current progress can be calculated using rules of credit, so you not only know what the percent complete is, you know how it was calculated, taking the human element out of the equation. With the latest percent complete values, InEight can instantly calculate key cost-related EVM metrics and performance factors (PFs) for each line in the budget — including for the parent levels in the structure — and for the project as a whole.

Cost-related EVM metrics in the InEight solution include earned value — also referred to as budgeted cost of work performed — as well as the CPI, which communicates the ratio of the earned value to the actual cost incurred. A CPI greater than one indicates strong cost performance (work is being delivered at a lower-than-expected cost), while a CPI less than one indicates weak cost performance (work is being delivered at a higher-than-expected cost). You can also use robust forecasting capabilities from InEight to calculate other EVM cost metrics such as estimate to complete and estimate at completion. In accordance with EVM standards, these metrics are independent of the schedule; they do not consider when the work was done (or was supposed to be done).

## Monitor Cost and Schedule Performance With EVM

For the most comprehensive view of project health, InEight enables connection of the project budget to the project schedule to unlock even more EVM metrics that consider the timing of the work. Schedules that can be saved in the common .XER file format, such as InEight Schedule and Primavera P6, can be used to connect to the budget.

Schedule-related metrics available in InEight include planned value, also referred to as budgeted cost of work scheduled, and schedule performance index. The planned value communicates the value of work expected to be completed by a given date, whereas SPI measures schedule performance through the ratio of earned value to planned value. A project with an SPI greater than one is demonstrating strong schedule performance (more

InEight Earned Value Management provides industry-standard cost and schedule metrics for a 360-degree view of project health.

**90%** or more reduction in time spent generating EVM reports

**75%** or more reduction in time spent integrating budgets and schedules for EVM

## Resources

[What Is Earned Value Management in Construction?](#)

[Leveraging the Full Value of Earned Value Management](#)

[Choosing the Right Software for Your Earned Value Management System](#)

### BUILD

Use simplified EVM to monitor and communicate cost performance.

### CONNECT

Connect cost, schedule and progress for a comprehensive view of project health.

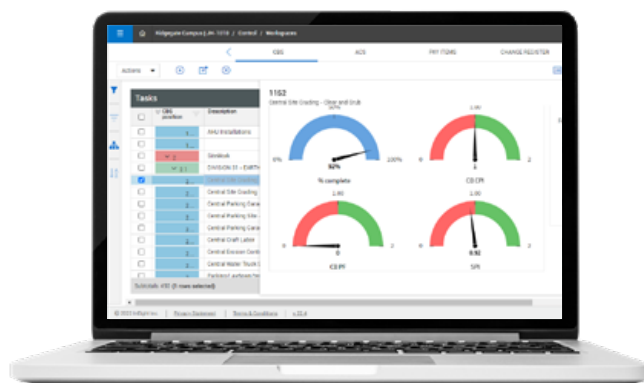
### INNOVATE

Produce and distribute EVM reports and dashboards in record time.

## The Simplest Path to EVM

Whether you're implementing EVM strictly as a management tool, or to meet project contractual requirements, InEight makes it easy. Just do what you already do — define your budget and track percent complete as the project evolves — and InEight takes care of the rest. With the pre-defined industry-standard EVM metrics built into InEight Earned Value Management, you don't have to worry about manually updating Excel spreadsheets and defining formulas to get the reports you need.

Of course, EVM starts with a budget, and InEight Cost Budgeting & Forecasting provides the ideal framework for managing the original budget and current budget



*With InEight Earned Value Management, you can effectively monitor costs, schedules, work hours and other project performance factors with minimal effort and a high degree of efficiency.*

## EARNED VALUE MANAGEMENT (CONT.)



work has been delivered than expected by a certain date), whereas the opposite is true for a project with an SPI less than one.

When it comes to planned value, InEight takes into account time-phased budgets, which can be calculated automatically by distributing each cost item's budget over the time period between the start and finish dates found in the schedule. That distribution can be done using predefined cost curves, such as bell-shaped or front-loaded, or by manually adjusting the distribution so that the desired dollar amounts fall in the desired time periods.

With our ability to provide both cost and schedule-related EVM metrics, you avoid the traps that can arise when looking solely at one or the other. There is often more to the story of a project that is under budget. After all, the actual cost for the work completed might have been less than expected. But, that picture is less rosy if the project hasn't also delivered as much work as was expected by a certain date. InEight gives you a single view in which to communicate project health across both cost and schedule, ensuring everyone understands the true status of the project and what risks to explore while there's time for corrective action.

### Stop Wasting Time Creating EVM Reports in Excel

Trying to create earned value reports and graphs in Excel is about as enjoyable as having your teeth pulled. Not only does it require a lot of effort to get set up, such as defining all the EVM formulas, but you're also forced to use Excel as a database, something it's not really designed to do. Updating an Excel workbook with transactional data such as progress entries and budget changes is not for the faint of heart and ultimately doesn't stand up to scrutiny related to data control and audit trails.

With InEight, you get all the power of a controlled database to store the latest transactional data — with predefined industry-standard EVM metrics built in — plus a full audit trail so you can easily see what's changed

over time down to the line-item level. And with InEight Analytics & Reporting, you can take advantage of self-service dashboard creation to easily respond to project-specific reporting requirements, without the need for IT assistance or custom programming.

With InEight, you can easily share up-to-date EVM dashboards with appropriate team members on a controlled basis, both within your organization and externally. And since it all runs from the cloud, all anyone needs to access the latest dashboards is a web browser. There's no software to install and no need to comb through emails and attachments to get the most current view of a project's health.







# ESTIMATING & PRICING

## The Industry's Trusted Estimating Solution for Power and Flexibility

Owners and contractors alike need to create estimates with efficiency and confidence, and with the appropriate level of detail for the stage of the project. Whether it's a conceptual estimate to support an owner's capital planning and approval process, or a detailed, bottom-up estimate to support a contractor's bid proposal, estimators must be able to validate their numbers with confidence and respond quickly to questions and changes. Of paramount importance is the ability to support and defend "what if?" scenarios, update scope and design quantities, and track changes from one version of the estimate to another.

Based in the cloud, InEight Estimating & Pricing supports top-down, conceptual, and bottom-up estimating approaches, providing the flexibility to apply methods most appropriate to the scope of work. Users can create realistic cost estimates using customizable templates, standardized resource and assembly databases, and real-time benchmarking of previous projects. In fact, as

you create the estimate, benchmarking capabilities from InEight proactively looks for as-estimated and as-built data points from historical projects to show you how the current estimate aligns with that history.

Since estimates often must be presented to different audiences for different purposes, InEight Estimating & Pricing includes best-in-class capabilities to roll up and visualize the estimate with tremendous flexibility, including multiple cost breakdown structures, pay item and proposal structures, account code structures and unlimited work breakdown structures. What's more, our highly intuitive user interface simplifies data entry and editing with drag and drop for moving and copying, fill-down and multi-edit to simplify mass edits, powerful filtering and sorting and a full audit trail to show the history of changes anyone has made to the estimate.



conditions. Instead of starting each new estimate from scratch, you can take full advantage of previous work that not only streamlines the process, but also ensures standardization and consistency of coding to enable comparisons across estimates.

## Create Top-Down or Bottom-Up Estimates With Ease

When conceptual estimates are required because project details have yet to be established, InEight gives you the tools to create high-level estimates in seconds. Estimators and planners can input basic parameters appropriate to the type of project, such as square footage of a building or megawatt capacity of a power plant, and instantly get an order of magnitude estimate with default assumptions. As scope and design details emerge, you can then update the assumptions and provide more inputs to gradually turn the conceptual estimate into a detailed estimate.

When a high degree of accuracy is required, InEight Estimating & Pricing provides the ability to create highly detailed estimates with unlimited breakdown structures. Each line in the estimate can be detailed out with crews and productivity rates, shift arrangements for overtime pay, resources such as materials and equipment, work hour factors, quotes from subcontractors and vendors, even down to varying fuel consumption rates for heavy equipment to easily respond to fluctuating gas and diesel prices. Our software enables the creation of true cost models, not just cost estimates, so you can easily adjust any variable in the estimate at any time to reflect current assumptions.

Our flexible, feature-rich estimating software brings project certainty to capital construction.

**75%** less time spent to produce early-stage estimates

**50%** reduction in the estimate and control budget gap



Increase in forecasting accuracy

## Resources

[Why Aecon Prefers Facts Over Feel in Estimating](#)

[Lowest Construction Bid Wins? Not in All Cases](#)

[How to Get the Most Out of Your Construction Estimating Software](#)

*"For every 100 bid-build jobs that we bid, we save about one estimator year. And we bid more than 100 per year. It's like having an extra estimator on staff without the cost of an added salary."*  
- Mike Albani - Vice President of Estimating, AECOM

### BUILD

Create benchmark-validated estimates — from high level to highly detailed — using templates, resources and cost and assembly libraries.

### CONNECT

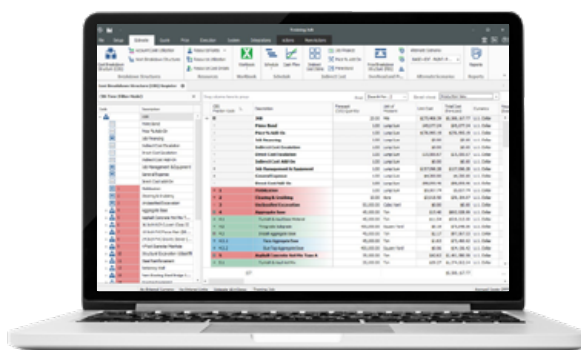
For contractors, confidently turn estimates into proposals with strategic markup and pay item pricing, alternate scenarios and subcontractor quote management.

### INNOVATE

Sync estimates with design models and project schedules to eliminate redundant data entry and gain new competitive advantages.

## Give Time Back to Estimators With Pre-Defined Templates and Libraries

Our software allows you to create new estimates quickly using any combination of standardized templates, along with libraries of current resource rates for labor, equipment, materials and more. Take advantage of third-party cost databases and build your own customized "norms." Or just drag and drop to copy sections of previous estimates into new ones, and then easily update the underlying assumptions to reflect current project



# ESTIMATING & PRICING (CONT.)



## Use Powerful Assemblies To Create Extensive Estimate Details With Minimal Inputs

Assemblies from InEight can derive estimate details based on scope-specific inputs such as quantities, dimensions, specs, productivity or difficulty factors and more. Once the assembly is defined, estimators can choose it from the library to generate extensive estimate detail — even entire estimates — just by answering questions that serve as inputs into the parametric models. For example, a detailed estimate could be created for a tilt-up warehouse building simply by answering simple questions such as square footage and wall height. Or, create hundreds of estimate line items covering form, pour and strip scope for concrete foundations by inputting the number of foundations, lengths and widths, form material and concrete specs. And unlike “black box” systems with locked-down calculation rules, you have complete control over all the variables and formulas in the assemblies. Once an assembly is used in an estimate, it remembers all the user inputs so it’s easy to update assumptions later to support design changes or on-the-fly, “what if?” conversations.

## Not Ready To Give Up Excel? Integrate With It Instead

Many estimators have developed extensive estimating spreadsheets in Microsoft Excel with customized calculations and inputs to estimate various types of work. With dynamic linking from InEight, users can leverage their own Excel spreadsheets and still get all the benefits of a controlled, database system. Data from Excel can be imported into an estimate in mass, or individual values in the InEight estimate can be linked to specific cells in the Excel workbook. That way you can update the estimate with all the latest values in Excel with a single click.

## Validate Estimates Using Historical Benchmarks

Our software ensures consistency and standardization that not only makes estimators more efficient, but also makes them more accurate. That’s because every estimate that anyone does adds to your ever-growing knowledge library that can be used as a reference point to quickly validate future estimates. By connecting to other InEight solutions, you can even add as-built data from completed projects into the knowledge library as well, so you can benchmark using both as-estimated and as-built values.

For a new estimate, just specify which historical projects you wish to include in the analysis (such as all infrastructure projects in the western region in the past

three years), and the system will continually check every line item in the estimate against the available historical data points. Our proactive benchmarking is like having a trusty assistant who is continually checking your work against historical “norms.” The system shows you high-low-average graphs from your project history and also color-codes each line item in your current estimate based on plus/minus ranges compared to the historical averages for cost and productivity. As a result, the more “green” items you have the more confidence you can also have that there is history to back-up the estimated value.

## Bring Order to Chaos on Bid Day

For contractors, completing an estimate you can rely on is only part of the journey. You still need to turn that cost estimate into a proposal, which means figuring out how you’re going to price the work including your direct costs, overhead and profit. It also means soliciting and comparing quotes from subcontractors and vendors (even as they change right up to the last minute) to make sure you’ve got everything covered. InEight Estimating & Pricing brings all of that into an orderly process. You can take advantage of numerous ways to calculate and apply indirects and profit, including strategic spreading to pay items for unit price contracts, to maximize cash flow and profit potential. For cost plus or T&M projects, you can also calculate profit based on the difference between

internal cost rates and outside billing rates for your labor, equipment, and material resources. Or simply include a fixed fee on top of your costs that can vary by category, such as labor, equipment or subcontracts.

Our software makes it easy to comply with proposal requirements for projects involving complex base plus alternate scenarios. You can tag estimate line items into various base or alternate groups, and even specify different markup strategies that go along with each possible scenario. That means you no longer have to create and maintain numerous copies of the estimate to support each alternative scenario.



## Keep Models, Estimates and Schedules in Sync

Connect InEight Estimating & Pricing to design sources and you can pull in quantities directly from a 3D model, such as counts and calculated areas and lengths. If the design changes, you can update the quantities in the estimate simply by pulling the latest quantities from the model. Further, you can connect estimates to schedules to easily produce time-phased cost estimates, cash flow graphs and resource utilization forecasts. You can even create cost- and resource-loaded schedules in Primavera P6 directly from the estimate. All of which makes it easy to keep design models, cost estimates and schedules in sync as you iterate through scope and design changes.





# FIELD DATA CAPTURE

## Real-Time Planning and Tracking for Successful Field Outcomes

What does it take to maximize field productivity for construction projects? It takes crystal-clear communication of the daily plan and software that makes it easy to track and report on the work done by crews and subcontractors. To withstand the rigors of construction, the solution must work on or offline, be intuitive, accessible from mobile devices and easy to adopt without extensive training.

InEight Field Data Capture checks all of the right boxes, giving field teams full visibility to the work that needs to be done and simplifying daily reporting so they can stay focused on the work, not the paperwork. InEight provides a full-featured, crew-based timesheet system, progress quantity measurement, productivity tracking, access to

drawings and specs, and easy entry of daily logs, issues and photos. Our best-in-class solution brings all of these elements into a unified application that field personnel can start using immediately.

Field engineers and superintendents can easily communicate the work out to crews using digital daily plans that contain all the necessary information to execute — scope and quantities, safety and quality requirements, related documents and drawings, productivity goals and more. Throughout the shift, foremen can be documenting the day's results to get a head start on daily reporting.

## Simplify Progress Reporting To Speed Up Billing Cycles

InEight Field Data Capture provides a standardized and consistent approach to capturing work completed. The approach can vary by project or even by discipline, so the right level of detail is captured to fulfill project reporting and billing requirements. Progress can be tracked at a high level, such as against a WBS or budget line item, or at a more detailed level when it's important to track installation of specific components. In either case, rules of credit can be employed to take the guesswork out of percent complete reporting. For example, a foreman can simply indicate that a specific spool of pipe has been welded and the system takes care of calculating how that impacts percent complete for the project, based on how much weighting is allowed for welding vs. other "steps" like QA/QC.

By keeping it simple in the field, progress capture is performed more often and with more accuracy, leading to shorter turnaround times when it comes to earned value reporting, billing and other project reporting requirements that depend on the timely calculation of percent complete. What's more, once time and progress data has been entered for the day, foremen can instantly see the day's results compared to productivity targets as well as gain/loss against the budget. The system even provides the ability to do corrective planning — foremen can easily try out different crew configurations to determine how to get productivity back on track.

The InEight solution is equally effective for self-perform work and subcontracted work. In fact, because it's a cloud-based solution, you can easily assign subcontractors a role in the system so that they can self-report on their own work, providing the opportunity for better collaboration, more accountability and faster approvals without having to dig through information in disconnected Excel spreadsheets. Progress recorded against subcontract line items also integrates with InEight Contract & Procurement Management, providing the visibility required to validate pay requests based on work performed.

Help field teams be more productive with daily reporting tools they will actually love using.

**40%** more hours saved annually through improved resource utilization

**60%** reduction in time spent preparing daily reports

**15%** reduction in timesheet errors and payroll review time

## Resources

[How Construction Scheduling Software Supports Project Teams](#)

[Why is Real-Time Data Essential in the Field?](#)

[Resetting Your Perception of "Complete" with Fully-Connected Field Execution](#)

*Field teams get full visibility to the work that needs to be done and can simplify daily reporting with InEight Field Data Capture so they can stay focused on the work, not the paperwork.*

### BUILD

Use electronic timesheets and automated field reporting to increase field productivity.

### CONNECT

Track quantities and work completed to speed up billing and earned value reporting.

### INNOVATE

Close the communication gap between the field and office while creating an audit trail of jobsite activity and potential issues.

## A Field Reporting Solution That Actually Improves Productivity

Let's face it, daily reporting is often viewed by field teams as something that detracts from productivity, a necessary evil that requires extra time after the shift to complete all the paperwork. InEight Field Data Capture flips that script, actually increasing productivity by driving more efficient collaboration between the office and the field. Digital daily plans can be published to field crews and subcontractors — or created on the fly at the point of the work — so everyone knows what to focus on. Throughout the day, foremen and supervisors can use their mobile device to begin capturing the day's results, so that all that's left at the end of the shift is a few quick entries to tidy up the report.

InEight can be used to capture timesheets for employees and equipment and includes extensive configuration

options to handle regulatory and union requirements for things like per diems, premiums and overtime. The timesheet system includes customizable employee sign-out and timesheet approval processes and can even integrate with popular payroll systems to eliminate double entry of employee hours. Because it's all digital, field personnel can copy timesheet templates, or even previous timesheets, and simply make the required edits for the current shift, saving time while ensuring correct coding. The end result is field teams spend less time doing administrative chores and more time delivering quality work.

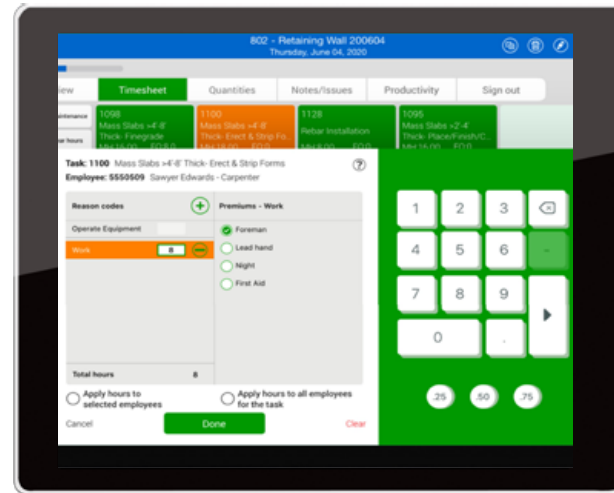


# FIELD DATA CAPTURE (CONT.)

## Easily Log Jobsite Activity To Manage Changes and Avoid Disputes

In addition to time and progress, field teams are often responsible for keeping a daily log or diary of all the happenings at the jobsite. InEight makes that easy, taking advantage of mobile device capabilities like voice recognition, GPS location tracking and photo capture to simplify the logging process. Foremen can make detailed notes just by speaking to their device, snap photos throughout the day to include in the daily report, and even log issues that could turn into potential change orders. Information in the daily reports can be categorized using tags to make it easy to find information of interest such as safety or quality issues.

Don't have reliable internet access at the jobsite? No problem. The InEight solution can run offline so you can capture timesheet data, progress data and daily diary information even when you don't have an internet connection. Just hit submit on your mobile device and once you have a live connection, the system will automatically transmit the daily report to the designated manager for review and approval.



## Dynamic Integrations with Other Project Controls Functions

InEight Field Data Capture can integrate with other systems to avoid redundant data entry and create seamless workflows. Approved timesheet data can go to your payroll system. Approved work progress can go to InEight Cost Budgeting & Forecasting to automatically update percent complete and earned values. Issues identified at the jobsite can sync with InEight Change Order Management to assign follow up activity and track the issue through resolution or progression to a change order. Photos captured at the jobsite can go to InEight Document Control & Turnover to preserve the historical record and become part of the digital archive to be turned over at the end of the project.







# HEALTH, SAFETY AND ENVIRONMENTAL COMPLIANCE

## Keep Your Project in Compliance Using Digital Forms and Workflows

Construction projects come with all sorts of obligations that go way beyond constructing a bridge, building, or power plant. Those obligations include things like maintaining a safe work environment, adhering to environmental regulations, and ensuring completion of all the forms, logs, observations and other tasks required to keep your project out of trouble. Keeping up with all of the constantly changing administrative requirements is a daunting challenge. However, InEight Health, Safety & Environmental Compliance now makes it easy.

Project administrators can maintain a library of digital forms and ensure that the right ones are being used by the right people at the jobsite. No more clipboards with outdated paper forms, and no more driving back and forth

to the office to submit completed forms. Field personnel can quickly complete the approved form on their mobile device, add photos, signatures and more — and submit it to the office in seconds. Whether it's a safety incident, a health observation, an equipment inspection, or anything else required to be logged and reported, InEight automates the entire process.

With an all-digital process, the InEight solution makes it easy to track the completion status of all the required forms and scheduled events, with full visibility to any outstanding reporting requirements. Customizable workflows ensure that review and approval steps are completed swiftly and that project reports, metrics and KPIs are generated in record time.

### BUILD

Create intelligent, digital forms and instantly push them out to relevant field personnel to simplify capture of health, safety and environmental data using mobile devices.

### CONNECT

Manage scheduled compliance activities and react to unexpected incidents with ease, ensuring all the right steps are followed to keep the project moving forward.

### INNOVATE

Shorten the time it takes to generate regular compliance reports and dashboards and ensure that all of the proper documentation is captured for turnover at completion of the project.



## It All Starts With Safety

Our software allows you to conduct safety inspections and observations directly in the field, where the work is happening. When safety incidents occur, manage them with customizable permissions and an intuitive workflow for regulatory reporting. Configurable, searchable reports allow you to view past incidents related to specific equipment or types of work in seconds. Use the data from past incidents to identify risks, create best practices and improve standard operating procedures — empowering your workers to work smarter and safer.

## Work From Standard or Customized Forms

Built for capital construction projects, our software is designed to support compliance requirements of any type, not just safety. Create and manage forms at an organizational level or project level, providing consistency and ensuring you capture the right data. Intelligent forms can contain question flow logic to shorten the time it takes to complete the form. And submitting the form to the office is instantaneous on a mobile device.

Forms can be customized to meet specific project requirements and can include numerous question types and formats, corrective actions, photos, signatures and even GPS location data.

## Digital Forms Mean Faster Workflows and Easier Reports

InEight Health, Safety & Environmental Compliance electronically routes forms through workflows of your own design. That means anyone who needs to be included in the workflow knows right away when they need to do something. Once they've completed their task, the workflow continues to the next step. The end result is dramatically shorter cycles to capture data from the field and route it through review and approval.

Further, because the InEight solution is all digital, you can easily generate status reports in real time showing what forms have been completed, what's still outstanding, and what issues or incidents need attention or follow-up.

## Make Sure All the Required Forms Get Turned Over at Project Completion

InEight Health, Safety & Environmental Compliance integrates seamlessly with our document control solution. That means completed forms and inspections can be stored in the document repository along with all the other project documentation. When it's time to gather up all the required documents for turnover at the end of the project, nobody has to search through files and folders of paper documents. Everything is stored in logical, searchable folders, making it easy to create an electronic archive to fulfill contractual requirements.

Streamline your compliance workflow with dynamic forms and centralized data capture, lowering risks and improving safety across projects.

**60%** reduction in turnover package creation time

**40%** reduction in process execution time

**30%** reduction in design and form creation time

## Resources

[The Crucial Value of a Construction Inspection](#)

[Why You Need Construction Inspection Software](#)

[A Digitalized Approach to Tracking Employee and Project Compliance](#)

*“Mission-critical processes are happening with crews in the field that leverage the InEight platform for QA, issue tracking, commissioning, closeout and transfer of information to post-construction operations. Our team is using InEight software applications to work with huge amounts of data at greater levels of detail in appropriate context for improving the project delivery process.”*

– Frank Peters - Program Manager, CBIM





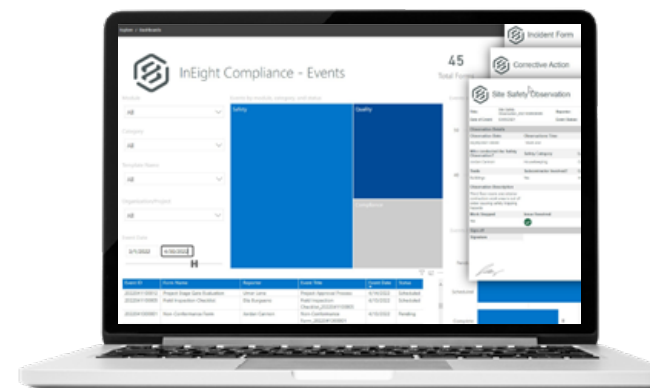
# QUALITY MANAGEMENT, STARTUP & COMMISSIONING

## Planning for Successful Project Commissioning Starts on Day One

All stakeholders on large capital projects have the same goals when it comes to quality and commissioning: deliver the project in accordance with specs and lay the foundation for a smooth and orderly transition to an operational state. Ensuring that process is indeed smooth and orderly starts at the beginning of the project before any construction work starts. That's why InEight Quality Management, Startup & Commissioning goes far beyond checklists and punch lists, providing the ability to create detailed quality and turnover plans specific to scopes of work (such as systems, installed equipment or construction packages).

The only way to make sure the proper records are collected for turnover is to know what they are in advance and to

have a plan for achievement that is fully aligned with the construction plan. The InEight solution recognizes that all stakeholders must participate in this process at each stage of the project's journey, with the ability to leverage progressive review and acceptance throughout the process. Minimizing risk during the turnover stage happens by taking risks off the table as the project moves along. To avoid surprises that can derail turnover, project teams need a collaborative process for quality, startup and commissioning that affords all stakeholders a high degree of visibility and accountability.



## Create Inspection and Test Plans Tailored to the Work at Hand

InEight Quality Management, Startup & Commissioning provides the flexibility required to create and manage inspection and test plans that are appropriate to each scope of work on the project. From simple checklists to multi-page inspection forms to comprehensive inspection and test plans, InEight provides a single source of truth for project quality management.

For routine quality inspections, you can manage an online library of standardized forms and checklists that have been approved for the project, ensuring that inspectors are always using the correct forms. The form builder makes it easy to create inspection forms from scratch, or edit existing forms for project-specific requirements using a variety of question types and form-flow logic to keep them simple. For disciplines with more complex quality requirements, the InEight solution enables the creation of inspection and test plans (ITPs) that can include the appropriate inspection forms and checklists, along with related documents such as drawings and specs. Such ITPs enable quality activities to be managed and tracked at the system level or even component level, perfect for projects involving mechanical and electrical disciplines, or complex, engineered equipment.

Whether a project's quality requirements are simple or complex, project teams can use the InEight solution on mobile devices to complete the required inspections, capture photos, notes, and signatures, and flag out-of-compliance issues for follow up.

Confidently meet quality and commissioning requirements to deliver an efficient project turnover.

**60%** reduction in turnover package creation time

**40%** more efficient QA process workflows

**50%** reduction in time spent creating and managing forms

## Resources

[Why You Should Care About Construction Quality Assurance](#)

[3 Common Challenges Facing Quality Managers – and How To Solve Them](#)

[Constructing a Successful Project Closeout](#)

*Everyone involved can benefit from real-time visibility into quality and commissioning assignments, status and issues, while taking advantage of a common repository to capture and store the required documentation along the way.*

### BUILD

Control construction quality using routine checklists or comprehensive inspection and test plans (ITPs).

### CONNECT

Orchestrate commissioning and startup activities across stakeholders to ensure timely delivery of constructed assets.

### INNOVATE

Make sure nothing falls through the cracks with a collaborative and connected process from quality management to startup.

## What Happens Between Construction Completion and Asset Turnover Can Make or Break a Project

Completion of construction work for any scope is not the end of the journey. From there, project teams must make sure the work was done per spec and performed in accordance with quality requirements. In addition, the project team may also be responsible for commissioning and startup tasks that serve to “prime the pump” and make sure the asset is operational at turnover.

Through the entire process, managing the documentation that goes along with quality management and commissioning for complex capital projects can be a huge challenge. Coordinating the numerous roles and stakeholders involved in these steps

requires careful orchestration, constant communication and easy access to the latest project information as things change.

The InEight solution provides a collaborative, workflow-based platform to automate and streamline quality and commissioning processes. Using the web along with mobile devices, everyone involved can benefit from real-time visibility into quality and commissioning assignments, status and issues, while taking advantage of a common repository to capture and store the required documentation along the way.



# QUALITY MANAGEMENT, STARTUP & COMMISSIONING (CONT.)

## Manage Startup and Commissioning Activities From Checklist to Final Punchlist

In addition to automating quality workflows for construction, the InEight solution extends into the startup and commissioning stage to make sure that the asset being constructed is fully operational prior to turnover. The asset can be broken down into a logical hierarchy, such as by area and by system, which can be used to plan and manage startup and commissioning tasks, make assignments to stakeholders, and track the status of everything that must be completed before handoff to the owner.

Along the way, the InEight solution captures and organizes the required documentation, including completed inspections, checklists, photos, comments and signatures across all the stakeholders involved in the process.

Everyone involved has the right visibility and access appropriate to their role and scope, and configurable workflows automatically route tasks to the right people, so everyone knows what they need to do next. The solution can even be used to manage care and preservation tasks to make sure that installed equipment and systems are in compliance with warranty requirements.

When issues arise, the InEight solution makes it easy to track and manage punch list items and assign those to the right team member for follow up. As a result, all the required steps are followed and nothing falls through the cracks, from inspection to sign-off. Audit trails and running comments collected during the process drive accountability and avoid finger-pointing.

## Integrate Quality and Commissioning With Related Project Controls Processes

InEight Quality Management, Startup & Commissioning integrates with other InEight solutions, such as work planning, document control and building information modeling (BIM) to enable integrated workflows that drive efficiency and eliminate redundant data entry. For example, the integrations allow inspection and test plans to be connected with elements in 3D models, providing as-designed visual context to the work being inspected and the ability to light up the model with quality status and startup issues. Connecting quality management with work planning and document control ensures that inspections and quality-related activities are included as measurable steps in work plans, and that drawings, RFIs, and other documentation relevant to the work are easily accessible to quality inspectors.

With InEight, reports and dashboards are generated promptly to show the status of quality activities across the project, including outstanding issues that may be holding up acceptance of a specific scope of work. InEight provides the robust functionality required for quality and commissioning teams to complete their work, communicate the status of outstanding issues, eliminate costly rework and keep projects on schedule. By eliminating surprises, our collaborative process minimizes disputes across stakeholders and shortens the time for constructed assets to become operational.







# RISK MANAGEMENT

## Gain Confidence in Project Plans

Traditional risk analysis tools are sophisticated and advanced, and they're great at helping you do periodic risk assessments. The problem? They're not integrated into the overall planning and scheduling process, and their complexity often limits their use to specialists. As a result, they don't adequately assess ongoing risks by incorporating team feedback.

InEight dramatically improves the risk management process in three ways. First, risks that might otherwise go unnoticed can be surfaced early on using AI to analyze

previous projects with similar characteristics. Second, the built-in collaboration framework makes it easy for subject matter experts to identify risks and maintain a risk register as the project evolves. Third, sophisticated cost and schedule risk assessments can be performed on the fly, using proven techniques such as Monte Carlo simulations. The result is risk identification and assessment becomes an integral, continual part of the planning and scheduling process.

### BUILD

Provide project teams with a collaborative, comprehensive framework to proactively assess and manage risks.

### CONNECT

Create more accurate schedules and budgets using artificial intelligence (AI) + human intelligence (HI) to incorporate the impact of event and uncertainty risk.

### INNOVATE

Apply sophisticated Monte Carlo simulations to calculate cost and duration contingencies required to achieve a desired level of confidence.



## Holistic Risk Analysis for Complex Construction Projects

InEight Risk Management provides contractors and owners with the ability to continually assess risks as the project evolves. Uncertainty risks can be identified by subject matter experts as they review the plan. The built-in risk register can also be used to list discrete event risk threats, opportunities and ideas. The combination enables a full-spectrum cost and schedule risk analysis to be performed by the system at any time.

Whether the goal is to quantify risk to create risk-adjusted schedules and budgets, or simply to provide risk visibility to project team members to ensure effective planning and execution, InEight Risk Management makes it easier than ever before. That's because everything is in one place — costs, schedules and risks all interact naturally, enabling seamless "what if?" scenarios and the ability to quickly evaluate project costs and durations with a specific confidence value ("P value").

## Maintain a Project Risk Register

In addition to uncertainty risk identified by planners, event risks (threats and opportunities) can also be captured in the system's risk register. In construction, a risk register contains vital information on potential project events that could impact duration and cost. The InEight risk register breaks down each risk with key attributes such as probability and potential impact on cost or duration, enabling planners to visualize, categorize and rank potential risks, and even create a plan to mitigate them. By automatically mapping risks to activities as they get added to the centralized risk register, project teams have a valuable mechanism to both capture risks and make those risks visible to appropriate team members throughout the planning and construction stages.

## Conduct Risk Assessments With Confidence

At any time, risk analysis software can comb through both the uncertainty risk (from team member input) and event risks (from the risk register) to perform a risk assessment. Just specify the desired P-value (probability or certainty level) you wish to achieve, then decide if there are any uncertainty or event risks you wish to exclude in the analysis. The system then allows you to move through the schedule and evaluate suggested adjustments based on AI (as applied to your Knowledge Library of as-built schedules), HI (received from team member input), and RI (risk intelligence calculated by the system).

Planners can then use the system to perform collaborative risk reviews and adjust the plan's cost and duration. Each participant is able to work in their own space (outside of groupthink), providing feedback on the uncertainty and event risks in their specific section. Once everyone completes their feedback, the software reveals areas of varying and low consensus. It generates a three-point estimate and auto-weighs the distribution for each line item. The planner can then run a Monte Carlo analysis across hundreds (or thousands) of simulations to determine the contingency needed to meet a confidence level between zero and 100. The system provides industry-standard views of the results, including risk histograms and tornado charts.

InEight Risk Management combines powerful AI, historical data and the real-world expertise of your team to create realistic plans that have been adjusted for cost and schedule risks.

**90%** Up to 90% reduction in risk analysis time



Dramatically improved plan accuracy



Centralized visibility to risks and opportunities for mitigation planning

## Resources

[How To Ensure Project Success Through Risk-Adjusted Scheduling](#)

[Choosing the Right Project Risk Management Software](#)

[Breaking Down Risk Management Silos](#)

*"InEight has the best support line of any company we've dealt with, if you call them at 1:00 a.m., they'll pick up and solve your issue, saved me many times in the past."*  
- Joe Baldwin, President, OCEANSIDE CONSTRUCTION



# RISK MANAGEMENT (CONT.)



## Democratizes Risk Management With Best-in-Class Collaboration

The collaborative nature of InEight Risk Management enables quick and frequent input from project team members who may not be scheduling experts but who have first-hand experience with the work. Using only their web browser, subject matter experts can easily participate in schedule reviews by providing input on expected durations and confidence levels. That HI is combined with AI — culled from past projects — to provide planners with a full view of potential outcomes. Ultimately, planners can choose to update the schedule based on feedback from a specific reviewer (a deterministic approach), or using RI to calculate uncertainty using different distribution approaches (such as best case, most likely case, and worst case).

## Connect With Estimating and Scheduling Systems

Powerful cost and schedule risk analysis from InEight can be performed using schedules developed directly with InEight, or using schedules created in Primavera P6. In either case, you can also import cost data from InEight Estimating & Pricing, minimizing (or eliminating) manual input of data. Once you have completed the risk assessment and updated the schedule, you can send it back to Primavera P6 for ongoing updates, or to meet contract requirements.

## Risk Analysis That Gets Better With Every Project

InEight replaces traditional three-point estimates and disjointed risk assessments with a more integrated and continuous risk assessment process that incorporates AI, HI and RI. Project team members apply their expertise and familiarity to their specific areas and disciplines, and the system's sophisticated risk assessment capabilities do the rest. The result is planners can create highly realistic, risk-adjusted schedules at every stage of the project.

InEight Risk Management not only helps you assess risk on the current project, but all of that project's risks and as-built values go directly into your Knowledge Library, adding more fuel for the AI engine to proactively identify risks on future projects. The more you use the software, the more intelligent it becomes, and the more relevant suggestions it surfaces.







# SCHEDULING & SHORT-INTERVAL PLANNING

## Planning and Scheduling for the Entire Team

Completing a project on time and on budget is no simple task in the dynamic world of capital projects and programs. Achieving project certainty starts with realistic plans that appropriately account for risks. InEight Scheduling & Short-Interval Planning allows you to move through pre-planning, CPM scheduling and short-interval planning (SIP) with ease. The software considers the entire project life cycle, with a consistent focus on collaboration and risk mitigation along the way.

## For the Pre-Planning Team: Conceptual Schedules in Record Time

During the pre-planning stage, the software's artificial intelligence (AI) engine analyzes your Knowledge Library to make intelligent suggestions based on current project parameters related to scope, project type, geography and more. Use these suggestions to rapidly create a high-level schedule that can be further defined as project details become available. Next, invite subject matter experts — internal or external to your organization — to add feedback to the schedule. Collaborate in real time using digital markup tools, then adjust the schedule based on identified risks and recommended durations.

## The Best of Both Worlds

InEight provides the best of both worlds: powerful CPM scheduling capabilities for the master schedule, plus an electronic version of the jobsite whiteboard for a swift and responsive SIP process. And the best part is SIP can now be performed in the full context of the CPM schedule. What does that mean? If your daily plans conflict with the CPM schedule, you can see the breach instantly and make the necessary adjustments to stay on schedule or adjust the CPM schedule if necessary. Traditional jobsite construction planning systems don't have a loop back to the CPM schedule. With our tools, you can compare daily plans against the bigger picture and instantly update the CPM based on reality. The result is a connected planning process that gives CPM schedulers and short-interval planners the functionality they need, while ensuring they stay in sync.

InEight uses AI and best-in-class collaboration tools to create more realistic conceptual schedules, CPM schedules and short-interval plans.

**30%** increase in execution certainty

**40%** improvement in team planning efficiency

**50%** reduction in schedule update cycles

## Resources

[Why You Should Care About Short Interval Planning](#)

[How Construction Scheduling Software Supports Project Teams](#)

[Reducing Risk with Construction Scheduling Software](#)

*InEight Scheduling & Short-Interval Planning allows you to move through pre-planning, CPM scheduling and SIP with ease.*

### BUILD

Easily keep the CPM schedule up to use AI and your historical Knowledge Library to quickly create realistic CPM schedules and extend to the field team with short-interval lookahead planning.

### CONNECT

Collaborate with subject matter experts on a single, digital platform to identify risks and validate plans, leveraging their experience to improve planning certainty.

### INNOVATE

Continually build your Knowledge Library with as-built schedules and risks, informing the planning of future projects to improve scheduling efficiency and accuracy.

## For the Project Team: Collaborative CPM Scheduling

Traditionally, project life cycles have been broken down into distinct planning and execution phases. The reality is, planning and execution are joined at the hip, requiring an iterative approach where execution outcomes inform ongoing adjustments to plans. Planning doesn't stop when execution begins, in fact, it's quite the opposite. Execution affords the opportunity to either validate the plans in place or react to observed realities with updated planning assumptions. For this reason, it's imperative to have an integrated planning system capable of defining schedules with the utmost granularity where needed, and with the ability to continually capture input from the subject matter experts on the team, no matter what their role.





# SCHEDULING & SHORT-INTERVAL PLANNING (CONT.)



## Better Schedules Through Better Collaboration

CPM scheduling systems have been around for decades, but their use is often relegated to a small number of “specialists” who are charged with keeping the schedule current. InEight Scheduling & Short-Interval Planning is different. It has all the scheduling features you expect, but is purpose-built for collaboration. That means everyone on the team can easily participate in the planning process. Subject matter experts can be assigned to comment on activities relevant to their expertise, and providing that input requires only a web browser — no scheduling system knowledge required. The planner sees everyone’s input on risks and forecasted durations in real time and can update the schedule accordingly.

This simple all-digital approach to collaboration encourages timely input and heightens communication and understanding between schedulers and field personnel. Getting updates and input from team members is no longer like pulling teeth. Everyone works more efficiently without the barrage of emails and phone calls that usually occur during every update cycle.



can now do it with the same speed and ease, but as part of a connected process that is accessible from anywhere. Take activities from the CPM schedule and break them down into daily steps. Then coordinate those daily steps across the different teams responsible for the work, taking into account dependencies, resource availability, and any other jobsite conflicts or restrictions. The software’s drag-and-drop approach is as easy as moving sticky notes on a whiteboard. You can even include crew capacity and productivity rates for instant visibility into how much work can actually be done by when.

## Align CPM Schedules With Short-Interval, Lookahead Planning

Our software gives you the tools to create and communicate short-interval plans in alignment with the CPM schedule. Instead of coordinating daily assignments between crews and subcontractors using a whiteboard that only exists in the jobsite trailer, you

Plus, you instantly see if the daily work assignments resulting from the short-interval plan will not result in completion of the work in accordance with the CPM schedule, while there’s still time to adjust. Unlike physical whiteboards, our SIP software is built for continual, iterative updates. As construction progresses and issues arise at the jobsite, you can easily catch discrepancies, issues and expected delays right away, and adjust to achieve the original plan.

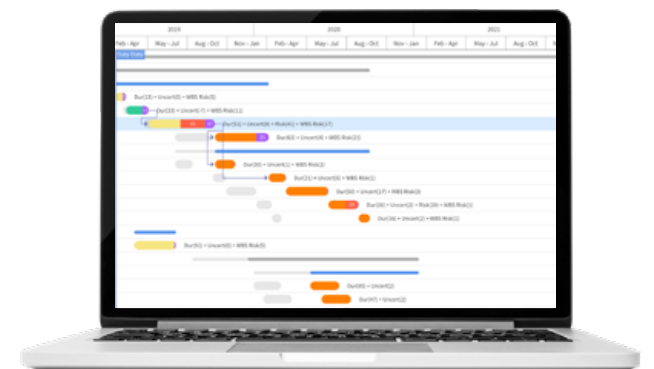
## Intelligent Project Scheduling

A lot goes into the creation of accurate CPM schedules for construction projects. One of the most critical elements is experience, but finding experienced planners and schedulers is not easy. That’s why InEight Scheduling maintains an ever-growing Knowledge Library from every project you plan and execute. The system uses that Knowledge Library along with AI to supplement the personal experience of the planner. The result is preliminary plans, complete with subnets and potential risks, can be developed in record time by simply entering a few parameters about the project such as location, size and other criteria.

When coupled with our best-in-class collaboration and risk management capabilities, planners can efficiently turn preliminary schedules into risk-adjusted plans that have been validated by subject matter experts. It means everyone on the team can become a smarter planner by taking advantage of the collective experience from past projects.

## Read and Write Schedules in Primavera P6 Format

Primavera P6 schedules are sometimes mandated in construction contracts. Our project scheduling software allows you to import and export schedules directly to and from the XER file format (the universal standard for sharing Primavera P6 schedules). As a result, you can load Primavera P6 schedules right into InEight to take advantage of its unique collaboration and risk assessment capabilities. Then, send the schedule back to Primavera P6 at any time to meet contract requirements.







# WORK PLANNING AND PACKAGING

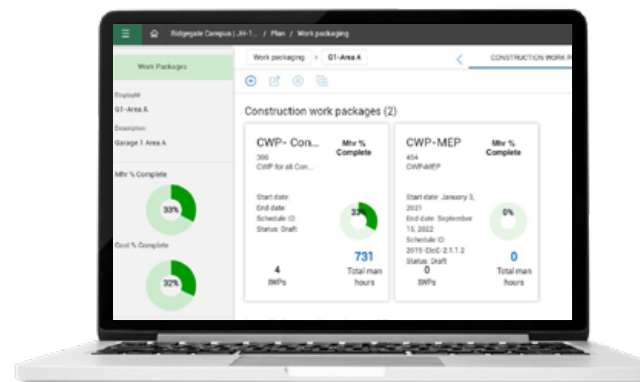
## Efficient Full-Cycle Work Plans From a Single Source of Truth

During the planning and design phases, our software lays the groundwork for successful construction by establishing a common data environment — accessible by contractor discipline teams, owners, designers and engineers alike. When it's time for construction, InEight Work Planning & Packaging gives you the tools to swiftly create and communicate work packages and daily plans based on the bigger picture of project scope and schedule dates.

Whether the project calls for advanced work packaging (AWP), lean planning, or any other approach to engineering and construction work planning, the flexibility of the InEight solution has you covered from

start to finish. Planners can define areas of work and then define work packages by breaking up large scopes of work into logical chunks organized by discipline or other characteristics.

Work packages can include everything required to communicate the work, including documents and drawings, safety and quality considerations, material components, crew requirements, constraints and more. When a work package is ready, with all of its requirements planned and vetted, it can then go through an approval process before issuing it out to the field for construction.



the extensive manual effort required to keep work package components aligned with the latest design models and ensure work package timing stays aligned with the latest project schedules.

Our fully connected work packages are built to improve field execution and deliver more successful project outcomes.

**25%** reduction in planning time

**15%** increase in field productivity through better planning



Dramatic reduction in rework

### BUILD

Manage construction deliverables with an integrated work planning process that fits your team.

### CONNECT

Improve collaboration between home office, field teams and project stakeholders to ensure an orderly progression of the work.

### INNOVATE

Integrate work plans with models and schedules to easily keep up with changes to project scope, design and timing

## Simplify Field Planning and Collaboration by Streamlining the Work Packaging Process

InEight Work Packaging & Planning provides a comprehensive framework for the planning and execution of construction deliverables. Planners can break the project scope down into a logical hierarchy, such as by area, then by discipline, and proceed to create digital work packages that include all of the information required to complete each scope of work. Digital work packages bring together expectations around scope, such as budget/WBS line items, material and activity components, required resources such as labor and equipment, and relevant documentation such as drawings and specs. You can even manage dependencies and constraints to ensure that they are all checked off prior to releasing the work for construction.

Our software enables planners to function at the level of detail required to communicate and deliver the work, independent of the level of detail in the budget or schedule. For example, the budget or schedule might only go down to the level of detail of “concrete foundations,” whereas planners using InEight can create separate work plans for each distinct foundation, complete with the planned quantities and steps required for each one. For projects involving thousands of components, such as piping and electrical systems, our solution vastly simplifies the process of planning and tracking the work at the component level.

## Resources

[Learn an Easier Way To Plan and Execute Work](#)

[Resetting Your Perception of “Complete” With Fully Connected Field Execution](#)

[Filling CPM Gaps with Knowledge-Driven Planning](#)



## Keep All Stakeholders Aligned To Optimize Productivity

Successful delivery of engineering and construction work packages requires careful collaboration across all project stakeholders. Planners, schedulers, designers engineers and field teams all have to be in lockstep when it comes to expectations around scope and schedule. That's why InEight Work Planning & Packaging leverages the cloud to enable simple and secure collaboration across the entire project team. Rather than relying on meetings and emails, project teams can collaborate digitally in real time, whether that's to answer their own questions, add new information or participate in review and approval workflows. This new level of visibility results in a new level of efficiency and accountability across team members.

The InEight solution can also connect work packages to models and CPM schedules. That means elimination of

*“InEight made us totally rethink how we did daily work plans, quantity claiming and time collection. The technology streamlined the process, eliminated data entry and paperwork and kept our guys out in the field instead of behind a desk.”*  
– Clay McKenzie - Project Engineer, TIC – The Industrial Company



# WORK PLANNING AND PACKAGING (CONT.)



## Orchestrate and Track Work Consistently To Eliminate Surprises

While the scope in a work package might represent several weeks' worth of work, InEight makes it easy to create daily plans from those work packages that can be published to field personnel for execution, complete with planner's notes, safety and risk considerations, and much more. Work packages and daily plans can go through an approval process to ensure full stakeholder alignment before work begins.

In addition, the system facilitates a consistent process for reporting progress and percent complete using standardized rules of credit. These "claiming schemes" can be pre-defined in a library and applied to activities or components, ensuring that proper weightings are applied to calculate percent complete based on the work performed in the field. This approach takes the human element out of progress reporting and ensures that all stakeholders have a consistent view of progress to drive payments and earned value reporting.

## Take Advantage of Dynamic Integrations

The InEight solution integrates the work planning process with other project controls functions, such as budget management, forecasting and scheduling. This not only simplifies project reporting, but also fosters a proactive, accountable culture through real-time feedback, empowering teams to swiftly react to problems as they happen at the jobsite.

For projects with ready access to 3D models, the InEight solution enables a visual planning process so engineers can manage construction areas, work package scope and components directly in the model. That way, the model can be used as the definitive source of components (and

their quantities) to be included in the project's various work packages. Further, when integrated to the project schedule, the InEight solution ensures work package timing stays in sync with the master CPM schedule.

This integrated approach makes it easy to react to the design changes and schedule changes that can have a ripple effect on work packages. When it comes to reporting, the system includes numerous reports and dashboards, or you can use the model to light up or visually report on work package status, contractor assignments, work progress, and more.





# CONCLUSION



At InEight, transformation is core to our business. It's in our DNA and is evident in everything we do and how we do it. We are shaping the future of the construction industry by helping companies digitally transform the way capital programs and projects are built around the world through our integrated platform of software solutions.

## Strategic Partnerships That Drive Innovation

We believe in the power of collaboration. To that end, we strategically partner with some of the most innovative companies around the globe to drive innovation and deliver solutions that allow companies to leverage their existing technology infrastructure and streamline their business. Doing so allows our customers to better compete in today's competitive, fast-paced market. InEight supports over 70 technology integrations with partners such as Bluebeam, DocuSign, Dropbox, Microsoft, Oracle, Salesforce and SAP.

## Delivering Results Across All Industries Worldwide

Our solutions are tailor-made for capital projects in many industries around the world, including general building, transportation, energy, power, renewables, utilities, water, oil, gas, chemicals, mining and minerals. InEight empowers public and private owners, contractors, designers and engineers in these industries to deliver predictable outcomes and results while improving productivity and reducing project risks with its end-to-end project controls solution.

## Guided by Change Management Experts

Our people-centric approach to change management is unique and proven. And it's driven by a certified team of experts who have come directly from organizations that have adopted InEight software. This real-world experience allows them to keenly understand the impacts of change as they help you execute your organization's desired strategy and facilitate adoption by driving positive, sustainable change through your greatest asset — your team.

## State-of-the-Art Security for All Your Project Data

In today's digitally connected world, companies are concerned with the safety and security of business data. Most worry about being vulnerable to spying eyes or theft from competitors or being the potential victim of ransomware attacks. Secure data is of the utmost importance, especially with sensitive financial information.

You can sleep soundly knowing that our cloud-based platform provides rock-solid security of all your project data. It does this through a foundation of multi-layered, built-in security controls and unique threat intelligence from Microsoft Azure. It also allows you to set access policies and permissions as your teams work from a centralized version of project truth across your entire organization. Further backstopped by AICPA SOC2 and ISO27001 certifications, InEight maintains elevated business operations to protect procedures and processes that could impact business continuity and the security of your data.

Whether it's our functionally rich software platform, strategic partnerships that extend value across your business, or steadfast protection of your data — your success is our mission. With our broad industry experience, we understand the diversity of your operation and take a mindful approach to your organizational change. When partnering with InEight, every step of your transformational journey, whether to solve an operational issue today or to strategically pivot in preparation for tomorrow, is supported by seasoned experts who share a common driver. We are tirelessly in pursuit of enabling your success. It's in our DNA, it's who we are — pleased but never satisfied.

To learn more about the InEight integrated platform of software solutions, please visit [www.ineight.com](http://www.ineight.com) or contact us at [sales@ineight.com](mailto:sales@ineight.com).



